Attachment Relationships in Long-Term Foster Care
The Function and Role of Animals

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Award date:
2014

Awarding institution:
University of Bath

ATTACHMENT RELATIONSHIPS IN LONG-TERM FOSTER CARE: THE FUNCTION AND ROLE OF ANIMALS

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A THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF BATH

FACULTY OF HUMANITIES AND SOCIAL SCIENCE

DEPARTMENT OF EDUCATION

JULY 2013

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“Piglet sidled up to Pooh from behind. "Pooh?" he whispered.
"Yes, Piglet?"
"Nothing," said Piglet, taking Pooh's hand. "I just wanted to be sure of you.”

A. A. Milne, Winnie-the-Pooh

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Acknowledgements

Dr Sam Carr: Sam, thank you for picking me up and offering a framework on which to salvage my academic disorientation. Thank you for listening to my ideas and offering the time to discuss, question and manipulate them into what this research investigation has become. Thanks for putting up with my meanderings on the bicycle and the ebb and flow of my motivation at progressing this project. I certainly have not found this an easy endeavour, perhaps the hardest of all for the emotional toil it has included, so another thank you for not charging me for hours of counselling! Thanks for being a sounding board that echoes positive sounds and for maintaining belief that this could amount to something. Thank you!

Dr. Richard Joiner: Richard, thank you for taking the time to talk about this project and question the various merits of the tools and approaches that have been utilised. Thanks for making it seem possible and providing glimpses of hope.

The Sample, Advanced Child Care and all the Carers: A tremendous dose of gratitude to Advanced Foster Care, in particular Evans Ward, Nick Dunster and Lydia Tocher for providing the platform, the interest and the desire to improve conditions for children in care by offering access to this research sample. I really cannot thank you enough. Yet even more so, thank you to the children and the carers who are the very centre of this investigation. I appreciate you letting me into your lives and sharing some of the most rich, detailed and beautiful moments, showcasing happiness, vulnerability and resilience, and offering an insight to all who read this and related publications about the situations that so many children and carers are living in. Your honesty and humility in equal measure have been remarkable. To the children, I hope you find happiness and security in life; to the carers, thank you for the extreme efforts and sacrifices you make to help these wonderful young people.

My Parents: This research has, unequivocally made me assess my own relationships and consider their development. Thank you for how things have unfolded and for

managing my stubbornness, independence and enabling us to maintain a happy relationship despite my hesitance to reach out when I really ought to. Thank you for being my secure base, my safe haven and for being there when I do crumble and come running back. You have put yourself through tough times to support me emotionally and financially and I've become aware that I lack the ability to shape a worthy thank-you for all that you have done.

Sabine: I have not endured these four years alone – you have been through it greatly. You have accepted the third member in this relationship and put up with the tantrums and elations it brought. Emotionally I have been a wreck, financially even more broken and as for experiencing positive emotion, well I am sure it will involve being away on that TransAlp. Thank you for sticking by me and putting your life on hold.

Adi Adams: What is there to say that can summarise this experience we have been through. I would not have survived it with anyone else so thank you for being there with all the highs and lows that we've experienced. I'll always have ears for "what we feorise" and I know looking back on all of this will one day rouse a smile. Perhaps not for a while, but the scars will heal at some point.

To the research community and friends: Those with whom I have shared the undulations of the PhD process and together discussed numerous ways in which we love and hate what we do. So thank you to: Dr Tara Bailey, Dr. Justin Rogers, Dr Tony Solon, Stuart Gallagher, Tom Emery, Tristan Purcell, Dr Andrew Manley, Nick Willsmer, Dr Lavi Anneboina and Christopher Sims for the supportive conversations, coffee breaks and shared responsibility at picking each other up and gently providing encouragement to continue.

Abstract

This PhD research investigated the effect of animal presence in long-term foster care through the lens of attachment theory. Previous research has supported the notion that animals may facilitate human-human relationships (Beck & Madresh, 2008; Bernstein et al, 2000; Fine, 2000; Kruger & Serpell, 2006; O'Haire, 2013; Olex, 2003; Sanders, 1999) and improve aspects of relational abilities such as care, empathy, and love (Plakcy & Sackson, 2006; Walsh, 2009a). Other research has suggested human-animal relationships may be beneficial to the facilitation of positive attachment representations and that insecure attachment patterns may be altered through the adjustment of individuals' working models in relation to their animals (e.g. Kurdek, 2008; Kwong & Bartholomew, 2011; Parish-Plass, 2008, 2013; Sable, 1995; Zasloff, 1996). Empirical and theoretical research has also suggested that along with facilitating human-human relationships, animals may achieve attachment figure status in their own right and enter a human's attachment hierarchical network (c.f. Beck & Madresh, 2008; Ferry, 2006; Kurdek, 2008; Carr & Rockett, 2013; Sable, 1995; Zilcha-Mano, Mikulincer & Shaver, 2011, 2012). Utilising a reworked version of West at al's (1998) Adolescent Attachment Questionnaire (AAQ), longitudinal child-diaries and semi-structured interviews, results demonstrated that (a) children were able to form relationships with animals that satisfied the criteria for attachment bonds (Kwong & Bartholomew, 2011) and (b) that animal presence within the long-term foster environment assisted the development of more-secure relationships between the children and their carers through dual processes of *softening* the environment (Levinson, 1969) and attachment *switching* (priming attachment preparation through enhanced relational capabilities – Emmens, 2007). Findings suggest that children living in long-term foster care could benefit from being placed with animal companions and have implications for the attachment literature and foster care practitioners.

Keywords: Attachment Theory; Relationships; Foster Care; Human-Animal Relationships;

The Research Questions:

(1) To what extent can an animal be a figure of attachment for children in long-term foster care?

(2) How might an animal's presence facilitate the relationships between a child and carer in long-term foster placements?

List of Abbreviations

AAA – Animal Assisted Activities

AAT – Animal Assisted Therapy

AAQ – Adolescent Attachment Questionnaire

ACC – Advanced Child Care

AFC – Advanced Foster Care

BAAF – British Association of Adoption and Fostering

CIC – Child / Children in Care

LTFC – Long Term Foster Care

CAI – Child Attachment Interview

AAI – Adult Attachment Interview

GCP – Goal Corrected Partnership

Introduction

Human Relationships

Human beings weather an extraordinarily complex developmental process from 'the cradle to the grave' (Bowlby, 1969) during which, a factor of seminal importance for social interaction is how we relate to one another (Weiss, 1998). Human relationships are considered by many to be pivotal in our understanding and perception of the world (c.f. De Zulueta, 1994; Duck, 2007) as they guide our interactions and shape our behaviours in relation to how we have learned the world understands and perceives us (Parish-Plass, 2008). With that conceptualisation, the meaning of *the world* is intuitive of others; it is through existing with others and a result of relationships that we learn about ourselves and the environment, and give meaning to and place value on the objects and other beings within that space (Ainsworth, 1969). As a species, we are a product of interaction; we are a product of inter- and intra- personal relationships. Duck (2007) explains that at the centre of human relationships is human behaviour and the vast array of cross-cultural human behaviours, whilst driven by similar biological foundations, are presented in socially modified forms: "We live our lives as biologically animal and culturally situated individuals" (p.1). This interplay between the *biological* and *cultural* influences has provided theorists a platform on which to analyse and understand relationship characteristics, notably from the juncture of what is innate and that which is learned (Ainsworth, 1969; Bowlby 1957).

The characteristics that are learned demonstrate variety throughout the global population causing human relationships to seem most obviously diverse when observed through a cross-cultural lens (Duck, 2007). Yet while there are seemingly great differences in how needs and desires manifest as behaviours, there are characteristics of human relationships that remain consistent, particularly in infants where primary biological impulses drive behaviours before the influence of culture guides the newborn's relationship development (Ainsworth, 1969). But as socially developed

forms of influence exert greater force on the developing infant, relationships become "more than the pheromones or biological resources from which they undoubtedly draw" (Duck, 2007 p.5). Relationships with others become instrumental in the development of our individual personalities.

Owing to unique concoctions of biology and culture, people have their *sui generis* personality, which may be considered the particular combination of emotional, attitudinal, and behavioural response patterns that that particular individual feels and exhibits (Larsen & Buss, 2010). It is learned through exposure to heterogeneous experiences from birth and those experiences facilitate the formation of our minds much as a potter sculpts clay; the structure of the brain is physically influenced by the early experiences (Schore, 2001; Schore & Schore, 2008; Stern, 1985). Personality in essence is the entity that makes each of us who we are. This influence of biological and learned experiences positions the study of human relationships at the intersection of individuals attempting to cooperate. Thus relationships are a product and reflection of our concomitant negotiation of diversity (Larsen & Buss, 2010).

Throughout the immeasurably exclusive developmental experiences we encounter, humans establish an internal world of complexity about which some level of understanding must be reached. It is during this process that interactions and further engagements concrete the enduring characteristics of our personalities that shape, influence and interpret our subsequent human relationships (Dutton, 2007). It may therefore be postulated that the relationships we have with other people after our developmental years are a direct result of the relationships and perceptions we have developed within ourselves, albeit formed through the early interactions with significant others (Schofield & Beek, 2010). The relationships are educated through culture and locked within the parameters of our emotions and consciousness (Dykas, Ziv & Cassidy, 2008).

It was an awareness of this almost developmental determinism in light of early experiences that ignited my interest in the function and importance of human relationships. The idea that siblings and parents could have such varied relationships and that individuals could behave, express and repress so differently with different people intrigued me since I was able to look outside my autobiographical existence. Weiss (1974) outlined the *need* for relationships in human lives and the academic field of psychology has flourished with theories about the nature of, the importance of and the development of the construct by which we are classified a social species (c.f. Altman & Taylor, 1973; Swann, 1983; Tajfel, 1978). At the heart of relationships is the idea of relating (Fine, 2010) - the way in which we communicate with each other for a sense of connection with something other than ourselves (Swann, 1983). Whether the need for connection is to obtain assistance or comfort, to share an emotion or to feel validated, or simply to feel the pleasure of not being alone, humankind is defined by its relationships (Swann, 1983; Duck, 2007; Smolkovic, 2012; Weiss, 1974).

House (2001) identified the deleterious effect of poor social relationships, explaining how social isolation is linked with mental *and* physical ill health. Norman, Hawkley, Ball, Berntson and Cacioppo (2013) discuss the impact of social isolation on cardiovascular health, while Bentall (2003) and Duck (2007) amongst many others, discuss the strong influence of social isolation on conditions such as loneliness, depression and anxiety. Positive relationships that offer mutual support and enjoyment, which are consistent and satisfying and which are capable of stimulating feelings of safety, security and happiness are essential in the creation and maintenance of psychological well being (e.g. Bentall, 2003; House, 2001; Weiss, 1974; Zeanah, 2009). Without such relationships, humans, like other social species suffer greatly (Bowlby, 1969, 1972, 1980; Harlow, 1961). The importance of positive relationship engagement is thus pertinent to optimal health.

For individuals who lack positive relationships there are clear reasons to suggest interventions that might help bring about their involvement with more positive social encounters. Children who have experienced negative relationships in the early years of life may have a generalised expectation that relationships are difficult and unpleasant and are likely to experience difficulties with social interactions (Schofield & Beek, 2007). The difficulty facing interventions is the incongruity between expectations and reality; when relationship interventions are enacted the recipient may experience a felt loss of control, which may be threatening and anxiety provoking (Pearce, 2009). Yet, providing positive relationship engagement for persons with negative social networks may alleviate many symptoms of ill health and foster more positive engagement in life with reduced experiences of distress and anxiety (Levinson, 1969; Parish-Plass, 2008; Serpell, 1996).

There seems an unequivocal understanding that humans *need* positive relationships with others. Theory demonstrates how individuals deprived of relationships suffer (e.g. Metzner & Fellner, 2010), and a substantive body of literature portrays the importance of relationships for the acquisition of profitable mental health (Bentall, 2003; De Zulueta, 1993; Duck, 2007). In children for whom relationships are challenging, unsatisfying and threatening, there exists a dearth of health, of happiness and of security (Hoffman, Cooper, Powell & Marvin, 2006).

Of course, human relationships may be conceptualised and understood through the viewpoint of diverse disciplines, each placing its emphasis upon and developing its understandings about similar or even different elements of human interactions. Each of these interpretations and theorisations of human relationships hold importance for the field of study and while this research does not intend to be imperialist in claiming that only one theory is the right way to consider relationships, it is mindful of the utility of one particular theory in the conceptualisation of the participants' past and present experiences.

After studying the literature I felt attachment theory was an appropriate theory that encompassed many of the experiences I had witnessed. Having worked with neglected children I learned that attempting to build deep and trusting relationships when they had principally experienced negative and inconsistent relationships in the past was very challenging for good reason. Like many interventions that sought to assist such children I later withdrew (for further employment) and unwittingly reproduced their cycle of neglect; perhaps proving correct their expectations that others were untrustworthy and relationships lack continuity. As explained previously, it seemed the absence of positive relationships in their lives was causing them distress; they sought closeness and intimacy but were unable to understand or manage those emotions when they were experienced. They each conveyed a sense of distress and expressed loneliness and appeared preoccupied with trying to understand the rich variety of others within their environments.

Introduction to Human-Animal relationships

As introduced above, the maintenance of relationships is important for the sake of positive human health, but rather than merely seeking and forming relationships with other humans, many people also maintain influential relationships with non-humans. Humans and animals have co-existed for centuries, forming and transforming social, emotional and working relationships throughout (Fine, 2006). Anthrozoological research indicates the mid-twentieth century was an unsettling and transformative period for humans' relationship with animals (Anderson, Hart & Hart, 1984; Fine, 2006; Rollin, 2006; Sanders, 1999), and the once symbiotic relationship transformed into an exploitative, industrialised pursuit of efficiency, profit and productivity (Rollin, 2006). The mid-twentieth century bore witness to humankind's upsurging desire for modernization. The utilisation of animals within biomedical research and extensive

agriculture proliferated and this erosion of the symbiotic relationship degraded animals to disposable utilitarian objects.

But such a deep-rooted relationship was not so easily eradicated. Much of the present human world would not exist had the cooperative relations with animals not been initiated and at this transformative period of development, humans were all too aware of that (Fine, 2006). Perhaps there was a desire to distance ourselves from our animal pasts (Serpell, 1996), yet in many fields we owed our development to these relationships with animals and they are still to be thanked for many independence-giving services such as hearing, seeing and mobility services today (Fine, 2006). Beyond such service roles, animals have been and remain integral in family life, often fulfilling the position of family members across much of the western world (e.g. Horowitz, 2009; Sanders, 1999). Indeed, there are numerous environments in which animals have been shown to promote the physical and mental health of humans, whether through physical interaction, increasing self-worth or promoting attitudes of love and care, that Animal Assisted Therapy has been recognised and accepted as an extensive means of treating many physiological and psychological complaints (e.g. Baker & Dawson, 1998; Cole, 2007; Corson et al, 1977; Fournier et al, 2007; Friesen, 2010; Furst, 2006; Gagnon et al, 2004; Parish-Plass, 2008; Tsai et al, 2010; Walsh & Merton, 1994).

It is no surprise however, that the rush for urbanisation, which distanced humans from nature and animals, lead to the decline of our intimate connection. This estrangement of humans from nature was considered a cataclysm in the social and emotional functioning of contemporary society (Fine, 2006), occurring concurrently with increased incidences of social deviance, emotional dysfunction and family separation (Michael, 1978).

However, despite the great changes in the human-animal relationship, the affiliation was far from discarded. It evolved, assuming a new form more suited to the modern industrialised society (Fine, 2006). The loneliness engendered by urban living

and the subsequent societal changes in raising children, community relationships, nuclear families and extended life spans inaugurated new functions for companion animals (Beck & Katcher, 1996; Kurdek, 2008). As loyal, affectionate, non-judgemental and unconditional givers of love (Parish-Plass, 2008), people turned to animals as the perfect answers for penetrating the existence of lonely and socially isolated people, including those with mental or physical disabilities, the disturbed and the depressed (Rollin, 2006; Sanders, 1999). Beck and Katcher (1996) clearly identified the impact of pet ownership on the increased social-interactions of urbanized cultures, while Serpell (1996) elucidated further with details of how these animal interactions benefitted human's mental health, particularly self-worth, self-esteem and reduced depression. His research further explicated that pro-social behaviours and positive social interactions for people with companion animals were a direct result of the human-animal connection.

Contemporary relationship research has returned to the study of human-animal relationships to re-examine the beneficial implications for both species. Anthrozoology, although a new field of academic inquiry is the organisation of previously existing methodology, yet new applications of theory are being held against these cross-species relationships. Of particular note is the interest paid by attachment theory to human-animal relationships (e.g. Kwong & Bartholomew, 2011; Noonan, 2008; Parish-Plass, 2008; Carr & Rockett, 2013; Zilcha Mano et al, 2011, 2012) as this is a heavily influential theory for understanding human relationships and notably serves to guide many of the care systems in place across the westernised world (e.g. child-care, restorative and therapeutic care systems, *inter alia*). Furthering understandings of the implications of human-animal bonds thus offers potentially influential insights to care-systems in diverse forms.

During the time I was working with children to whom prior mention was made, their interest and ability to establish a meaningful relationship with a variety of animals was highly apparent. They maintained consistent, motivated, affectionate and intimate

relationships with their animals: horses, dogs, rabbits and ferrets. Each of the children expressed feelings and emotions toward *their* animal in a way that was alien by comparison to their human relationships. They spoke fondly, warmly about the animals and in a way that roused a sense of enjoyment, trust and comfort in them. What is more, it was at times of significant familial, scholastic or personal distress that they could most likely be found with their animal. Someone with whom one could share the positive and seek comfort during the negative events in life was what these children found in the animal relationships, not with other humans. Their companion-animal relationships offered a freedom from the learned challenges of human-human relationships. As Fry (1997) so accurately described, despite only discussing a male's socially controlled behaviours, "a dog allows an adolescent, struggling to be manly, cynical and cool, to romp and giggle and tickle and tumble like a child" (p. 210). In fact, many animals allow so much more than just a freedom for young males bound by cultural rules of how males should behave. They seemingly enable great numbers of people the freedom to express emotion, to engage in vital attuning experiences (e.g. Lockwood, 1983; Okoniewski, 1984; Schore, 2001) and to experience unconditional affection (Allen & Burden, 1982; Fine, 2006; Katcher, 1983).

The perceptions and experiences of these children highlighted the positive potential of strong human-animal relationships. What was it about the animals, their presence, their actions and behaviours that appealed to the children? Horowtiz (2009) and Parish-Plass' (2008) research findings suggest it might be the result of non-threatening, unconditional affection and responsive interaction that the children received from the animals. Other research suggests it is the physical intimacy *sought* and *offered* by the animals (e.g. Katcher & Beck, 1983, Podberseck, Paul & Serpell, 2000), which has been referred to as the 'intimate connection' between human and animal (Sanders, 1999; Smolkovic, 2012). Many of the children considered the animals as friends and used terminology to suggest the animal had transcended into a human-like position

within their social structures. This is not uncommon for many in western societies, as those who welcome social animals as part of the family structure have been reported to perceive them as active members of the family, affording them person-like status (Chur-Hansen, 2010; Gunter, 1999; Katcher & Beck, 1983; Messent, 1983; Podberseck et al, 2000; Sanders, 1999; Tuan, 1984; Vilhjalmson, 1993; Wilson & Turner, 1998).

If humans can position animals in their family structures and afford them person-like status, what are the bases of such bonds? There appears a deep investment in many of these relationships and this has led to my perception that, besides language, animals may well offer a platform for humans to realise a variety of important, influential relationship attributes.

Interest in Attachment Theory

When considering how to investigate the complex nature of human relationships, it seemed logical to investigate relationship development from the first interactions: from those seminal moments when we enter into our initial dynamics outside the confines of the uterus. There are numerous theories concerning human development (See Newman & Newman, 2007), but Bowlby's (1969, 1972, 1980) Attachment Theory seems particularly robust. It has been described as an evolutionary mechanism to ensure survival and beyond this basic premise, one that seeks to establish relationships with significant others in the formation of internal constructs that guide our perceptions of and relations with the environment and other people around us (Ainsworth, 1969).

Bowlby (1980) suggested the complex collection of attachment feelings and behaviours (the 'attachment system') evolved to ensure the protection of the infant by maintaining proximity to the mother. Contemporary literature has suggested that it is not essentially the mother, but an adequate substitute may also be a primary caregiver (Carr & Rockett, 2013). In addition, Bowlby theorised that these close bonds also facilitate emotional regulation and healthy psychological development within the infant. His

initial observations were of children in hospitals that had been separated from their mothers and it was their predictable styles of reaction to separation, from initial *protest,* through *despair* and finally *detachment* that convinced Bowlby he was observing experiences in a way that developmental psychologists had not yet organised.

Owing to the inability of human babies to move around independently, Bowlby suggested behaviours such as gazing, crying and smiling exist to achieve proximity by drawing the mother to the child. Through repeated transactions with the caregiver, he suggested the infant develops an idea about the quality and consistency of the caregiver's help. As the infant develops the skills for mobility, the available attachment behaviours develop in complexity; the child may follow, cling to or vocalise more specifically to establish proximity if threatened whilst exploring their environment. Confidence in the caregiver's availability and ability to soothe the infant when distressed is suggested to be highly important for the infant's exploratory, linguistic and psychological development (Ainsworth, Blehar, Waters & Wall, 1978).

Whilst attachment complexity develops further as the child matures, seminal attachment relationships are held responsible towards the development of that child (Weinfield, Sroufe, Egeland & Carlson, 2008). The initial relationship with the primary caregiver is accountable for shaping the child's expectations of their caregiver and subsequently of other people (Ainsworth, 1969). It leads to the development of internal systems (termed 'working models'), which serve to guide generalised expectations about ensuing relationships in light of the initial attachment relationship with the primary caregiver. Thus, attachment theory offers suggestions for how seminal relationships exert influence within subsequent relationships and across the lifespan (Ainsworth, 1969; Schofield & Beek, 2007, 2008; Smolkovic, 2012; Weinfeld et al, 2008).

It was through a search for understanding relationship perceptions that I discovered attachment theory. It offered further logical reasoning for the numerous reactions to learning experiences across the lifespan; it supported why some children

display seemingly incongruous behaviour and that which is most likely to provoke the rejection they most fear (Schofield & Beek, 2007). Simultaneously, the theory offered answers for why certain people operate on their own in the absence of close others (avoiding intimate relationships – connected with inner working models *of others*), while others seem pre-occupied with close relationships seeking constant reassurance to soothe their anxieties (connected with inner working models *of the self*) (Ein-Dor, Mikulincer, Doron & Shaver, 2010; Smolkovic, 2012).

In essence my interest in attachment was born of the understanding that the particulars of our specific early interactions mould our relational selves (Ceccoli, 2013) and that for optimal health and development, dependents require a consistent, affectionate and appropriate relationship with at least one significant other; one who will protect, comfort and nurture (Bowlby, 1969, 1973; Craik, 1943). The manner in which this happens impacts one's development, influencing interpretations of the world, the actions of the others in that world, and of the self in relation to the world (Carr, 2011).

Thesis Outline

First, the literature review approaches Attachment Theory, offering a summary of the pertinent findings that best conceptualise the theory's framework. It engages literature concerning the construction of internal working models and the relational characteristics that lead to the development of each attachment style. There is subsequent appraisal of measurement techniques within attachment theory and justification of the assertion that insecure attachments are worthy of security-enhancing interventions. The relative stability of attachment orientations is subsequently approached.

The Literature Review then focuses on the application of attachment theory to the specific population of foster care, outlining the function of the UK Foster System. Literature concerning placement stability and the implications of instability are

discussed once more against the framework of attachment theory but with focus on the mental health implications of non-optimal functioning of the foster system.

The Literature review concludes with an appraisal of anthrozoological literature, discussing the nature of human-animal bonds and the diverse research areas that have suggested positive implications for human mental health. Human-Animal relationships are discussed in the context of attachment theory, with emphasis upon literature that debates whether animals can fulfil the tenets pertinent to attachment bonds.

The second section of the thesis details the methodological approach, presenting a justification for employing constructivist-realist ontology. It details how this philosophical approach influences the conceptualisation of the theoretical underpinnings and how that in turn informed the process of data collection. I also include a justification of child-centred research that seeks to understand the lived-experiences of the children through their own words and actions.

The third section of the thesis covers the Results and Discussion. I present the data first, but contextualise the findings within the discussion of their application to existing literature. I combine the results and discussion in this way to enhance the richness of the data and provide deeper context within the body of literature.

Finally, the fourth section of the thesis summarises key findings from the investigation, and also offers reflexive discussion about the limitations of this piece of research. It makes suggestions for how this literature has extended theory, measurement and practice and attempts to make pertinent suggestions for how future research might advance ideas and ask further questions, to which I offer directions by which these questions might be explored.

Literature Review

"In Lewis Carroll's *Through the Looking-Glass,* and *What Alice Found There* the eponymous heroine is transported through a mirror to an unfamiliar world… To understand it, Alice decides to take a grand survey of the country, concluding: 'It's something very much like learning geography'. Encountering foreign landscapes requires a frame of reference: in unfamiliar territory Alice constructed the alien terrain according to the architecture of her own experience" (Sims, 2012).

Attachment Theory

A result of humankind being a social species is that we are implicitly driven to form and maintain social and emotional relationships with others (Boag, 2010). It is possible to reason that human relationships are fundamental in the facilitation of psychological wellbeing (e.g. Bowlby, 1997; Diener & Seligman, 2002; Weiss, 1974) for they give reason and identity to our selves and the world around us. Weiss (1974) outlined four fundamental functions to human relationships: (1) Attachment, finding emotional closeness and security; (2) Social affiliation; (3) Opportunity for nurturance; and (4) Obtaining help and guidance. One theoretical understanding that explains the notion of close relationships as pertinent to wellbeing is Attachment Theory (Bowlby, 1969, 1973, 1997), which first explained the critical importance of the mother-infant bond on the development of a child's psychological wellbeing and the later influence across the lifespan (Unrau, 2008).

Born through the observations of infants separated from their mothers, the theory offers a compelling understanding for how the seminal mother-infant bond guides an individual's *expectations of others* and *perceptions of the self* from infancy through maturation and then throughout adulthood (Boag, 2010; Smolkovic, 2012). The theory is most clearly a description of normative relationship development and individual

differences, which describes how and why humans develop and maintain close emotional bonds with others (Cobb & Davila, 2009).

"One of the central tenets of attachment theory is the notion that early childhood lays the foundations for the development of personality through the lifespan" (Carr, 2011 p.6) and that a secure attachment to a caregiver is one of the first and most basic *needs* in an infant's life (Beck & Madresh, 2008). The theory developed from the ideas of John Bowlby (1969, 1973, 1981) who theorised that the young of species whom have an extended period of dependency are biologically motivated to establish and maintain selective bonds with select figures in their environment who are capable of providing care and nurturing the individual through infancy into adulthood.

Bowlby's (1973, 1980) theory of this innate attachment system was described by Bretherton (1985) as a 'psychological organization' that has the principle goal of regulating behaviours intended to maintain or initiate proximity / contact with discriminate *attachment figures*. Bowlby (1969) proposed the attachment system to be most active in situations where infants felt threatened, under stress, frightened, fatigued or ill and that it is toned down when attachment figures provide the desired comfort.

These early relational experiences give rise to an internal representation of the self, of others and of the self-in-relation-to-those-others, creating a mental construct referred to as an Internal Working Model (Carr, 2011). Those models subsequently guide one's interpretations of their relationship experiences and their ability to predict the responses of others at times of perceived threat to the self. There is a strong element of evolutionary theory within attachment theory in that there is survival advantage to forming relationships with others who are likely to protect, care for and provide for the needy individual. The theory also suggests that elements of self-concept and self-perception are linked to the internal working models that begin to unfold as a consequence of caregiver responsiveness to expressions of attachment needs (Carr & Rockett, 2013). The attachment system serves to regulate, maintain and obtain proximity

to a caregiver(s) who is perceived to be a secure base from which one can engage in environmental interactions safely and with confidence (Carr, 2011).

Internal Working Models

Critical to the understanding of attachment theory is the idea that early relational experiences lead an individual to establish internal working models of themselves and important others (Bretherton, 1992; Bowlby, 1973, 1980). They influence the meaning people ascribe to interpersonal experiences and they influence thoughts, emotions and behaviours in close relationships (Cobb & Davila, 2009; Smolkovic, 2012).

The working-model concept explains the way children make sense of their early experiences between them and their caregiver (Bartholomew & Shaver, 1998). The child internalises these understandings and forms such models and ideas about who she is and who the caregiver is based on how the caregiver treats the child (Goldsmith et al, 2004). The model reflects a generalised mental representation of the world, significant others and how they relate to those others (Carr, 2012) and is a collection of cognitive and affective schemas by which the individual understands the world: their expectations, defences, emotions and relational behaviours. The internalised information is used to construct a model of what can be expected from the attachment figure in the future (Goldsmith et al, 2004) and knowledge of this construct helps us "move beyond observations of children's external behaviour toward an appreciation of the child's internal experience" (Goldsmith et al, 2004 p.6). The model serves its function beyond the immediate relationship with the caregiver and is believed to influence a person's perception of others more generally, and exert later influence across peer, romantic and parenting relationships as well (Smolkovic, 2012).

An individual's working-model is held responsible for the habitual patterns of responses in close relationships, which are referred to as attachment orientations, styles, or patterns. "In short, internal working models directly affect how people construe their

social world, how their attachment desires and needs develop, and how they go about expressing and attempting to meet these desires and needs" (Cobb & Davila, 2009, p.210). It has been suggested, "In the construction of such working models children are essentially constructing and internalising both sides of the parent-child relationship model…" (Carr, 2012 p.13) the influence of which is so great that it is likely to be the same model of parenting employed when they too become parents (Parish-Plass, 2008; Van IJzendoorn, Juffer & Duyvesteyn 1995).

The formulation of attachment theory intended to explain child psychopathology in terms of non-optimal relationships between children and their caregivers (Bartholomew & Shaver, 1998; Bretherton, 1992) and posited that early relational experiences with caregivers lead to the development of persistent affective representations. Although evidence suggests working-models, once established, exert influence throughout the lifespan, contemporary theorists rarely consider them totally rigid constructs. Bartholomew and Shaver (1998) explain how theoretically, these representations exert influence in all close relationships in the form of expectations, emotions, defences and relational behaviour, yet attachment theory does not assume or require that internal working models persist without change throughout one's life (hence the term 'working'), as both theoretical and empirical evidence has given researchers reason to believe that the effects of childhood attachment relationships extend into adulthood, where they have been observed in the domains of parenting, close peer relationships and romantic relationships. Through specific environmental alteration, the working models can be subject to revision (e.g. Crowell, Treboux & Waters, 2002; Pearce, 2009). Nevertheless, given this marked influence of the early years across the lifespan, attachment theory seems an appropriate framework for understanding the influence of the past on the present (Schofield & Beek, 2010).

Noted previously, in addition to expectations about the attachment figure, Bowlby (1973) also hypothesised that working models related to whether or not the self

is judged to be the sort of person towards whom anyone, but the attachment figure in particular, is likely to respond in a helpful way. Thus attachment theory also suggests that elements of self-concept and self-perception are linked to the working models that begin to unfold as a consequence of caregiver responsiveness to expressions of attachment needs.

Collins and Read (1994) neatly summarise internal working models; they identify four elements which combined, describe the essence of the model: (1) memories of attachment-related experiences; (2) beliefs, attitudes and expectations about the self and others; (3) attachment goals and needs; and (4) plans and behavioural strategies to achieve attachment goals. Cobb and Davila (2009) point out that the depth of each component is subject to individual differences throughout child- and adulthood.

Worthy of note is the discussion about working model complexity and ordering. Whilst much of the early research speaks of *a* working model- the individual's solitary 'map' of the past for the future - contemporary theorists posit that it is be possible for multiple models to exist with relationship specific characteristics (e.g. Baldwin, Keelan, Fehr, Enns & Koh-Rangarajoo, 1996; Rowe & Carnelley, 2005). It is thus plausible, that an individual with compromised attachment might be able to attain and maintain a secure relationship with a certain other, guided by a *relationship specific working-model* that operates within their 'global attachment network' (Rowe & Carnelley, 2005). While this contradicts the single, pervasive nature presented in the seminal literature, contemporary research has indicated that it may be possible and it is now generally accepted that individuals do maintain multiple working models (Carr, 2011).

Researchers keen to develop this theoretical line of inquiry turned their attention to establishing how multiple working models of varying attachment orientations might exert their influence(s) in generalised relationships. Pearce (2009), like many others, suggests insecure representations cause individuals to perceive the world as threatening and themselves as non-worthy recipients of love. Conversely, individuals who maintain

secure orientations tend to see the world as a safer place, one in which they can engage safely and derive pleasurable and rewarding outcomes (Fuller & Fincham, 1995). It is accepted that multiple working models reflect specific relationships, yet to what extent do those mixed orientations predicate an individual's generalised perceptions of the world? Baldwin et al (1996) suggest the most salient attachment orientations act as a blueprint when attachment behaviours are generalised, something that was corroborated by Rowe and Carnelley (2005) with their findings on global attachment networks.

Therapeutic literature certainly suggests working models may be updated and thus individuals with compromised attachment representations are able to work through attachment difficulties, developing more secure attachment representations over time if the environment allows (Parish-Plass, 2008). Although working models of attachment tend to stabilize once formed, they are active constructions, which not without some resistance, must be restructured in order to continue being effective when circumstances change. Thus an altered environment, such as a therapeutic environment where a secure-base is provided, forms the most coherent framework for updating compromised working models. Both Parish-Plass (2008) in relation to therapy, and Schofield and Beek (2009) in relation to parenting models, advise that emphasis be placed upon constructs within relationships that foster the development of secure-base features, instilling faith in a trusting relationship that offers intimacy, affiliation, and acceptance. Schofield and Beek (2009) present pertinent case reports that highlight the influence of secure-base modelling on individual's attachment representations, demonstrating working models that transform from insecure to more secure patterns. Fuller and Fincham's (1995) research into the effects of marriage on attachment styles also indicated how the establishment of a secure-base enables the revision of insecure to more secure styles of attachment, while Hoffman, Cooper, Powell and Marvin (2006) reported changes in toddler's attachment styles following a security-enhancing intervention. At the centre of

all data that reports developments of more-secure attachment is an element of secure-base modelling (Schofield & Beek, 2009).

I intend to make clear my appreciation that attachment theory is just one 'lens' through which we might consider relationships. "Theorising is a natural, human compulsion that helps us to organise our perceptions of the world and therefore make it easier to predict and control. There are, of course, many theoretical perspectives within child development, many different ways of seeing the world and consequently, many different explanations and solutions for any one given situation" (Greig et al, 2007 p.17). Yet it is my conviction that I consider attachment theory an appropriate, felicitous way in which to consider children's relationships, particularly within this specific population, although appreciation must be given to other theories that could analyse and interpret the same relationships through a different lens.

It is concurrence with Bowlby's reasons for diverging from traditional psychoanalytic thought that this research utilises attachment theory as the conceptual underpinning for understanding relationships. His emphasis that *actual experiences* are of greatest importance and influence in shaping one's views of the self and of others is supported through the successful work of practical therapeutic interventions (e.g. Hoffman et al, 2006). That new, alternative experiences can assist individuals with non-optimal relationship histories to revise their working models supports the theorisation that actual experience is critical to the formation of attachment styles. This real-life foundation leads me to utilise attachment theory for its applicability and employability.

Forming Early Attachment Bonds

Newton-Verrier (2009) was adamant that the 'most critical of relationships' (referring to the child-mother bond) begins during gestation when the child grows familiar with the sounds and rhythms of the mother. Indeed, she explains that attachments are confirmed through post-natal interactions, which are essential for the child's learning of separation

from the mother and about the self. Newton-Verrier (2009) even suggests that separation of a child and mother at birth causes a *primal wound* that can never be healed. Newton-Verrier suggests it is not only experienced as a loss of the mother but also a loss of the self, that core being of oneself which is the centre of goodness and wholeness. In addition to the genealogical sense of being separated from one's roots, the child [Newton-Verrier explains] often experiences 'something missing' and a physical sense of incompleteness. However, much of this appears to follow theoretical views from psychoanalytic psychology, the place from which Bowlby's ideas emerged, but later diverged owing to his theory's greater emphasis on the influence of real-world encounters after birth (Bretherton, 1992).

Attachment theory was developed with the assertion that "actual experiences in early childhood occupy a more central role in the development of emotional disturbances than [psychoanalytic] thought permitted" (Carr, 2012 p.7). Despite being theoretically supported, Newton-Verrier's (2009) *primal wound* is a very rigid assertion, pervasive in its nature and of an extreme permanence that prevents it fitting with the malleability of internal constructs accepted by most attachment theorists. It also places absolute responsibility upon the mother to become the primary caregiver and most attachment research now follows the doctrine that another person besides the mother can fulfil the role of the primary attachment figure (R.Bowlby, 2004).

Dismissing Newton-Verrier's (2009) notion of in-utero attachments and concurring with Bowlby's assertions that real-life experiences are of greater significance (Bretherton, 1992), attachment relationships are thought to form as a product of needs-provision interaction between six and twenty-four months of age (R.Bowlby, 2004), the biological mother not necessarily being the obligatory figure of attachment but usually the most likely. The newborn child is relatively helpless and requires the care of more capable others to meet their needs of food, warmth, protection and touch. Early *attachment behaviours*, such as crying, gazing and babbling are designed to maintain

proximity to a caregiver by attracting the caregiver to the child. Carr (2012) explains how during the initial few months of life, the attachment behavioural system does not initiate behaviours intended for a discriminate figure, instead the intention of these behaviours at this age is to facilitate the formation of an attachment relationship with a *potential* attachment figure (p.10). By six months of age the child begins to associate needs-provision with a certain individual (referred to as the primary caregiver). Fisher et al, (2002) simplified attachment relationships, arguing the overall function of such a relationship is to find safety and calmness. When one finds another person or object that can consistently provide this, attachment relationships have a solid platform to develop securely.

In order for a child to form a *secure attachment*, the caregiver "must possess the capacity to accurately read the infant's signals, correctly interpret the need underlying the behaviours and respond quickly to effectively address the need" (Goldsmith et al, 2004 p.3). Hazan and Shaver (1994) explain how the infant also quickly assesses who the most frequent responder is and who provides the best quality responses to their attention seeking behaviours. By six months the child and caregiver are forming an attuned relationship (Hughes, 2000) through which infant and caregiver are able to communicate effectively (Vasta et al, 1999). This special relationship is consolidated and becomes increasingly explicit up to the age of 36 months during which time the infant is also undergoing significant cognitive, emotional and physical development (R.Bowlby, 2004). It is during this period of extensive growth that children also develop a familiarity with their world and ultimately an awareness of the unfamiliar. The concept of the unfamiliar elicits uncertainty and feelings of anxiety to which the child seeks soothing care from its caregiver who, if able to soothe the child, fulfils the major function of being a *safe haven*. Calmness is restored and the child is able to continue their exploration with the unfamiliar in a confident manner. For this reason, Bowlby believed the attachment figure is both critical for "the regulation of negative emotion in

response to the strange and unfamiliar and for the facilitations of independent exploratory behaviour" (Carr, 2012 p.11).

In the event of a responsive, sensitive and appropriate set of interactions, the child establishes a select relationship with the primary caregiver and consequently seeks soothing and needs-provision from this person ahead of others (R.Bowlby, 2004). This is not to say the infant is only capable of forming one attachment relationship. Often, infants form multiple attachment relationships in response to appropriate care (Hughes, 2000). So fathers, mothers and other persons within an infant's care-giving environment may also become figures of attachment (Hughes, 2000; R.Bowlby, 2004). To navigate this pool of available caregivers, theorists have presented a concept of attachment hierarchies that suggest individuals internalise their relationships in an order of quality or availability (Feeney et al, 1994; Fraley & Waller, 1998; Kurdek, 2008; Trinke & Bartholomew, 1997).

Pearce (2009) suggests an early attachment relationship is egocentric. It asks: Are you there for me? Can I count on you? Am I worthy of your love and protection? What do I have to do to get your attention, your affection, and your heart? Once a child has worked out their 'answers' to these questions, their attachment representations begin to establish. The child has an idea of which specific person(s) answer these questions successfully and the quality of these experiences serve to shape the development of the individual's working model(s).

Through repeated 'relationship transactions' (Carr, 2011) between an infant and the caregiver certain expectations and beliefs about the self and of the attachment figure arise. These expectations become internalised as part of the attachment behavioural system; a range of feelings, emotions and behaviours that are unlocked when the individual feels threatened, anxious or scared (Pearce, 2009). With repeated activation of the attachment system, the internalised models become habitual and eventually

generalised to other relationships, operating largely unconsciously in thoughts, emotions and behaviours (Hughes, 2000).

Where an individual has experience of *consistent, affectionate, available* and *sensitive* care they most likely develop a model of others that is generally positive. Based upon their experiences, they expect others to be available and prepared to provide care and support to re-establish a sense of felt-security during times of emotional distress (R.Bowlby, 2004). Concomitantly, such experiences lead to development of a positive sense of self; one that feels worthy of assistance, of affection and of receiving love. When such positive models of the self and others are in existence it reflects attachment security (Cobb & Davila, 2009), which in turn aids cognitive, social and emotional development. When compared to populations that have compromised attachment representations, the securely attached cohorts fare better with decreased susceptibility to mental ill health and other psychopathologies (Lee & Hankin, 2009; Hughes, 2000).

Classifying Attachment Relationships

Hazan and Shaver (1994) put forth that most modern attachment researchers would agree the majority of human infants do become attached to a primary caregiver. However, this does not, as explained, preclude the possibility that infants and children might form multiple secondary attachment bonds with significant others. For an attachment to develop, the child needs to learn about the dependency of their primary caregiver, whether they are consistent in their care and responsive in an appropriate manner. Hazan and Shaver (1987) and later Mikulincer and Shaver (2007) settled upon four critical defining features to a relationship for it to be classified an attachment relationship: 'Proximity Maintenance', 'Secure Base', 'Safe Haven' and 'Separation Distress'. In the most technical sense, a caregiver satisfying these criteria may be termed an attachment figure (Bretherton, 1985).

(1) Proximity Maintenance: Wanting to be near the attachment figure particularly in times of need or stress. With younger individuals, 'proximity' usually refers to the need for physical proximity, yet in adolescent and adult attachment literature such proximity is considered an emotional proximity, or symbolic proximity and other means of feeling 'close' to the attachment figure are considered plausible (Mikulincer, Shaver & Pereg, 2003).

(2) Secure Base: "Secure base support is the type of support that meets another person's needs for exploration, autonomy, and growth when exploration is safe and desirable" (Zilcha-Mano et al, 2012 p.3). If this relationship function is met then an individual has the confidence to explore novel and challenging experiences and engage with their environment safe in the knowledge that they have a source to which they can return for comfort if necessary (Feeney & Thrush, 2010).

(3) Safe Haven: "A Safe-Haven is the kind of support that meets a person's needs for comfort, reassurance, assistance and protection in times of danger or distress" (Zilcha-Mano et al, 2012 p.2). This may describe the person to whom a needy individual turns to when they are distressed in search of assistance, safety and to feel soothed of their distress.

(4) Separation Distress: Res ipsa loquitur. Essentially this is a description of the clear behavioural reaction experienced when separated from the attachment figure (physically, for younger individuals, and through other means with more mature individuals) (Mikulincer et al, 2003). Bowlby described the behaviour during separation in three distinct phases, and it was the existence of such protest at being deserted by the

significant other that led to his belief in the function of attachment behavioural systems (Bretherton, 1992).

While initial attachment research focused on these features within the parent-child dyad, subsequent research has expanded attachment theory and identified that attachment relationships also exist between romantic partners (Hazan & Zeifman, 1994); may be developed with therapists (Mallinckrodt, Gantt & Coble, 1995); varying types of leaders (Davidovitz et al, 2007) and even Gods and other religious figures (Bradshaw, Ellison & Marcum, 2010; Carr, forth; Granqvist, Mikulincer & Shaver, 2010). According to the criteria that qualify a relationship as an attachment relationship (refer to Kwong & Bartholomew, 2011), each of these relationship dyads *may* be considered as an attachment relationship. However, Rutten, Schuengel and Dirks (2011) alongside Waters and Cummings (2000) point out that careful consideration must be given to whether these are actual attachment figures or rather attachment figures of convenience, and suggest the need to further explore the extent to which all tenets of an attachment relationship are satisfied. Accordingly, the result of these assorted extensions of attachment theory, and subsequent diversities in what is upheld as an attachment relationship, is that scholars have questioned whether the widely accepted tenets are a necessarily suitable classification.

Indeed, much research moves back and forth between researchers who are content with and accept the four broad features as acceptable pillars of an attachment bond, whereas other researchers have called for more depth in understanding and seek more wholesome consideration of the *extent* to which these features are satisfied (Carr & Rockett, 2013). One of the greatest challenges facing extensions to attachment theory is the lack of theoretical consistency regarding the ideas, concepts and definitions that have underpinned them (Crawford, Worsham & Swinehart, 2006). Although such research investigations are situated within attachment theory that works within a conceptual

underpinning (Hazan & Zeifman, 1994) the extent to which those features are satisfied provides a great ground on which theoretical conflict plays out. Fraley and Shaver (2000) suggested the best candidates for classification as attachment bonds are those relationships in which *all* of the functions are satisfied, which rouses uncertainty about what exactly are those relationships where only two or three of the taxonomy's features are met.

The quest for clarity has directed critical consideration towards the methods employed to identify attachment relationship existence. Much research into attachment bonds outside of children-caregiver dyads has utilised self-report measures to verify attachment functions but reliance on self-report has its pitfalls for respondents may note who they *would like to* turn to rather than who they *actually* turn to at times of genuine distress (Carr & Rockett, 2013). Contrary to this, investigations utilising subliminal priming measures sought to investigate the cognitive accessibility of attachment figures when subjects were primed with a threat (through words or images) (e.g. Mikulincer, Gillath & Shaver, 2002). Results from Mikulincer et al (2002) suggested there were links between those individuals consciously listed as attachment figures (through self-report) and the cognitive accessibility of those figures during subconscious priming procedures; in this case offering support for the self-report approaches.

However, Carr and Landau (2012) presented findings that give reason to be critical of the validity of conscious identification of attachment figures through self-reports. Also utilising a subliminal priming procedure to compare conscious and subconsciously identified figures of attachment, they found that for some individuals the conscious, self-reported evaluations did not provide an accurate indication of the significant others that were unconsciously considered to be of primary importance (the most unconsciously accessible) when primed with threatening stimuli. Bernier, Larose & Boivin (2007) suggest this disconnect between conscious and subconsciously identified attachment figures may be due to defensive processes biasing self-reports. However we

must also consider the inverted situation where conscious identifications through self-report reflects who the individual has learned they are able to turn to for *actual* assistance in times of need, bringing into question the validity of subliminal priming as a raw and absent-of-reality consideration of historical impulses.

Further innovation has entered the methods field to bring clarity at the point of attachment relationship identification through research by Zilcha-Mano, Mikulincer & Shaver (2012) who primed attachment responses through distress eliciting tasks, measuring physiological indicators of distress and objective performance observation. The study found that physical *and* cognitive presence of companion animals was enough to heighten self-confidence, lower distress and increase task performance when compared to the absence of participant's companion animals. Evidence is provided that for some people, animals are capable of providing the cornerstone features of attachment relationships, although this is the result of moving beyond the utilisation of self-report measures and *combining methods* that offer internal-triangulation (Meijer, Verloop & Beijaard, 2002) and a more complete suggestion of one's working models (Carr & Rockett, 2013).

What the literature makes clear with this complex search for valid measurement is that no single method appears capable of convincingly, or at least satisfactorily, tapping attachment relationship existence in isolation. It appears the combining of procedures offers a degree of cross-referencing from which greater certainty can be reached regarding the level at which the four critical features listed in Hazan and Zeifman's (1994) taxonomy are satisfied. Recent research has proceeded with the mixed multi-method assessment approach particularly for more abstract extensions of attachment theory (e.g. Zilcha-Mano et al, 2012).

Insecure Attachment Patterns

Infants are predisposed to form attachments with another person if there is someone to interact with, regardless of the quality of care, thus the presence of an attachment is very much distinct from its quality (Hughes, 2000; Rholes & Simpson, 2004).

In contrast to the supportive and affectionate care that shapes secure attachment representations, if a caregiver is rejecting, abusive or unable to provide appropriate care then a child may develop a perception of the caregiver as unavailable, unreliable and at the same time perceive themselves to be unworthy of love (Cobb & Davila, 2009). Through repeated interactions where the child's needs are left unsatisfied or the child is unable to interpret the caregiver's actions, emotions or intentions, the child may internalise such interactions perceiving their relationship negatively. As recurring experience confirms the lack of consistent [appropriate] care, attachment theory suggests the child will internalise *insecure attachment representations* (Cobb & Davila, 2009; Hughes, 2000; Schofield & Beek, 2007).

The specifics of the caregiver's behaviour may influence the internalisation of attachment representations in different ways (Ainsworth et al, 1978). To organise these differences, attachment theory has described insecure-attachment styles that depict different internalisations of varying attachment experiences:

(1) Anxious - Ambivalent: Children with this attachment pattern are unable to use the caregiver as a secure base. They are characterised by distress upon separation yet ambivalence toward the caregiver upon reunion (Belsky & Fearon, 2008; Bretherton, 1992). The child is usually preoccupied with the caregiver's availability and they may exhibit clingy behaviours that seek to establish proximity before separation might occur (Schofield & Beek, 2010). This pattern of attachment is thought to result from a caregiver who is inconsistent, changing between appropriate and neglectful responses,

and most commonly, the caregiver only responds when the child escalates their attachment behaviours (Pearce, 2009).

(2) Avoidant: Children who have internalised an avoidant pattern of attachment seem to operate in isolation (Sonkin, 2005). Physiological investigations of attachment have indicated that these children do still feel distress as other children would, but they learn to turn off the attachment behaviours as they have learned them to be ineffective or to bring further rejection or neglect from the caregiver (Sonkin, 2005). These children appear to express little or no emotion at both separation from and reunion with the caregiver; as a result of learning avoidant patterns the child may treat strangers much the same as the caregiver and display ignorance or avoidance of the caregiver's interactions (Schofield & Beek, 2010). Often these children are perceived as rebellious and are likely to have lower self-esteem and poorer self-image (Pearce, 2009). This lonely style of attachment is often characterised by extreme independence, with the child reluctant to announce distress and is thought to develop as a response to a non-responsive care-giving environment where emotions are curtailed and little or no response is given to the child's distress (Schofield & Beek, 2010).

(3) Disorganized: Thought to stem from the adaptive responses to frightening or abusive care-giving environments in which pervasive negativity, role confusion and maltreatment underlie the child's experience of care (George & Solomon, 1989), children with a disorganized pattern of attachment display confusing attachment behaviours in response to their felt distress (Main & Solomon, 1990). Their strategy to seek out comfort appears contradictory, most likely owing to their difficulty with interpreting and predicting the situation-specific environment and the likely response of the caregiver (Schofield & Beek, 2010). This style is the most readily associated with

psychopathologies and is commonly noted in cases where the care-giving environment is associated with abuse (Carlson et al, 1989; Van Ijzendoorn et al, 1999).

These insecure patterns of attachment are adaptive strategies developed in response to the specifics of the care provided by the caregiver (Schofield & Beek, 2010). They mirror the care-giving environment and equip the child with the behavioural skill set that is most appropriate for survival within their specific living conditions (Chen & Chang, 2012). Anxious-ambivalent individuals' hypervigilance ensures they react early to ambiguous perceptions of threat, ensuring they are in a position to derive some sense of safety when required. Conversely, avoidant individuals' pre-occupation with self-preservation and independence equips them with the resolve to take care of themselves: they may respond to threats much faster without the reliance upon another being (Ein-Dor et al, 2010). The authors present an interesting theoretical position with regard to the nature of attachment insecurities, situating their ideas within an ecological, evolutionary context. It is reasoned that the continual existence of attachment insecurities through *intergenerational transmission* (Van Ijzendoorn & Bakermans-Kranenburg, 1997) must lead to some degree of survival advantage noting the behavioural preoccupations of hypervigilance (anxious-ambivalent) and self-preservation (avoidant) as especially useful for group as well as individual survival (Ein-Dor et al, 2010).

Rather than placing focus on the advantage of attachment securities on a group and instead, considering the adaptive advantages to the individual, theoretical suggestions have been made in accordance with Nettle's (2006) idea that a behavioural alternative (an insecurity), whilst bringing both costs and benefits into the equation, may offer greater advantages within specific circumstances. Ein-Dor et al, (2010) explain how attachment insecurity may help steer an individual away from harmful situations due to greater vigilance with respect to danger, or that avoidance may protect the

individual from being subjected to others' dishonesty. Furthermore, Chen and Chang (2012) demonstrated the positive influence that insecure attachment styles can have upon accessing resources through adaptive processes of coercion. Yet, advantageous perceptions of attachment insecurities must be considered within context, one in which these insecurities are recognised as developmental reorganisations in response to environmental challenges (Ellis, Figueredo, Brumbach & Schlomer, 2009). Within environments that pose threats or where instability and distress are inherent in living conditions, these adaptive responses to the circumstances provide the individual with an advantage for survival.

Belsky (1999) put forward an adaptionist analysis of attachment insecurities referring to their implications for reproductive strategies (Ein-Dor et al, 2010), but it seems incompatible when considered against the seminal theorisations of attachment theory where Bowlby (1969) posited that infants, born immature and helpless, developed attachment relationships that ensured the satisfaction of other needs before reproductive impulses would be active. This relative debunking of Belsky's (1999) suggestions that attachment styles developed to aid reproductive strategies is supported by a lack of gender differences in attachment styles, which if supportive of Belsky's heavily reproductively focused assertions, would demonstrate correlations between gender and attachment style. Rather, the lack of consistent sex differences within attachment styles fits more neatly with Bowlby's (1969) assertion that infants are more in need of care and protection and this is the raison d'être behind attachment relationships (Ein-Dor et al, 2010).

However, attachment theorists, particularly from neurobiological research fields, have not been entirely convinced by theorisations that present advantages to attachment insecurities (c.f. Sonkin, 2005). Physiological research has highlighted that beneath the observable independence of avoidantly attached individuals, such individuals do still experience the stress, but they have learned to switch off the attachment behaviours that

result - they have learned that expressing those concerns did not derive the comfort or assistance they sought, or perhaps brought about further unpleasant experiences from the person to whom the behaviours were directed (Sonkin, 2005). Thus, from a physiological perspective, insecure attachments are considered detrimental to optimal mental health owing to the presence of activated-but-repressed, or hyper-activated responses identified during periods of distress (Sonkin, 2005).

That physiological investigations indicate distress within avoidantly attached individuals and that anxious and disorganised individual's behavioural strategies are born of their anxieties regarding the care they desire (Bretherton, 1992; Pearce, 2009; Schofield & Beek, 2010) leads many attachment researchers to the mindset that compromised attachments are in some way detrimental to the optimal health of the individual (Dykas, Ziv & Cassidy, 2008). That some situation specific theorisations are able to suggest insecurities are advantageous adaptive responses (Chen & Chang, 2012), demonstrates the double-edged sword for those who maintain insecure internalisations, for although attachment insecurities may offer helpful behavioural strategies in specific contexts, the presence of a compromised attachment is both a gift (in the context of a non-optimal environment) and a curse (in that it negatively influences subsequent relationship and self-perceptions).

This particular research aligns with the theorisations that individuals with attachment insecurities experience non-optimal health and asserts the opinion that enhancing representations towards security is a meaningful and purposeful endeavour (Hoffman et al, 2006).

Attachment Networks & Relationship Specific Working Models

Researchers of adult attachment generally conceptualise the security of an individual's working models on a bi-dimensional axis, between *anxiety* and *avoidance* (Zilcha-Mano, 2012). *Anxiety* describes a working model that experiences worry and concern over "the

availability and willingness of others to meet attachment needs…and is characterised by a low threshold for activation of the attachment system, fears about the worthiness of the self in relation to others, and the use of hyper-activating strategies, such as excessive proximity seeking as a way to manage distress" (Cobb & Davila, 2009 p.211). *Avoidance*, however, refers to the deactivation of the attachment system to deal with threats to security, largely because of discomfort with intimacy (Smolkovic, 2012; Sonkin, 2005).

Bartholomew and Horowitz (1991) used the intersection of these theoretically independent dimensions to classify four attachment 'styles': *secure, fearful, preoccupied* and *dismissing*. Cobb and Davila (2009) explain: "Secure individuals are low in anxiety and avoidance, while fearful individuals are high on both dimensions. Preoccupied individuals (also known as anxious-ambivalent) are high in anxiety and low in avoidance, and dismissing (avoidant) individuals exhibit the opposite configuration to this" (p.211). A person is generally expected to be consistent with one prototype, however it is now understood that it is possible for an individual to exhibit behaviour characteristics of other prototypes in different attachment relationships (Baldwin, Keelan, Fehr, Enns & Koh-Rangarajoo, 1996; Rowe & Carnelley, 2005).

Rowe and Carnelley (2005) neatly discuss the issue of multiple attachment orientations within a hierarchical structure and explain how individuals have been found to report relationships characterised by different attachment styles. Further to this, Rowe and Carnelley (2005) detail the influence of such variation of attachment styles, suggesting the possibility of relationship specific attachment orientations, which may differ from the individual's 'global attachment style' (Rowe & Carnelley, 2003). Pearce (2009) claimed the global attachment style is the most influential as a blueprint at times of distress and advised further research towards understanding how best to manipulate attachment patterns to facilitate access to more secure frames of reference. Pearce's therapeutic work seeks to develop children's securities to combat pervasive insecurities

within global attachment networks. Indeed, Rowe and Carnelley (2005) indicated that the greater the number of relationships pertaining to each style most significantly influenced the global attachment style, thus the more secure relationships one maintains, the more they are likely to respond to stressors using this blueprint (Baldwin et al, 1996). Such information is valuable to therapeutic professions (Hughes, 2000).

An individual's attachment relationship hierarchy offers important insights for understanding attachment networks. Through greater knowledge of attachment networks it might be possible to make sense of attachment style influences on network organisation which is likely to offer understanding about attachment style stability and changes over time (Rowe & Carnelley, 2005).

Although Bowlby and Ainsworth's early assertions were that children formed *an* attachment style that remained pervasive and influential across the lifespan (Bretherton, 1992), contemporary investigations have highlighted that it is most often the case that individuals develop a multitude of relationship-specific attachment representations. However, Bowlby's concept of a pervasive style that exerts influence over the lifespan is not completely debunked by conceptualisations of multiple-working-models as it remains somewhat supported by the conceptualisation of a global attachment style that operates as a reflex at times of serious distress (Hughes, 2000).

Stability of Attachment Patterns

Bowlby (1973) suggested that attachment styles contained some sense of malleability and had the potential to be reworked, but only as the result of consistent incongruities between one's initial internal working model and the relationship experiences one is subsequently exposed to. These incongruities lead to a reorganisation of attachment representations, which in turn update the *working* models and one's perceptions and expectations of relationships (Fuller & Fincham, 1995).

However, much literature on adult attachment explicates how early experiences in childhood serve to govern and guide perceptions and expectations into adulthood (Fuller & Fincham, 1995). In addition, there have been investigations into the far-reaching aspects of adult attachment styles, where it is understood that adult attachments are predictors of parenting styles and thus strong correlations can be made to hypothesise the attachment styles of children in what is termed the 'intergenerational transmission' (Parish-Plass, 2008; Van Ijzendoorn & Bakermans-Kranenburg, 1997). The working models developed in childhood mature with the individual but are exposed to different learning experiences throughout that maturation process. Some experiences serve to confirm established models, reinforcing perceptions of the self and expectations care and support from others, whilst other experiences may conflict with expectations and bring about new learning experiences that interact with and update attachment representations (Crowell, Treboux & Waters, 2002; Schofield & Beek, 2007). *Revision of working models* (Bowlby, 1980) has been evidenced to develop in both security and insecurity, suggesting the plasticity of working models may be shaped both positively and negatively (Hoffman et al, 2006).

A recent meta-analysis by Mikulincer and Shaver (2012) expressed optimism in relation to altering the negative course of psychosocial development that appears to be associated with insecure working models of attachment via the formation of alternative and revised attachment bonds. They suggest there is now more established compelling evidence that insecure-individuals are sometimes able to develop new secure relationships with others that resemble attachment bonds and serve to challenge their existing working models. There is good evidence to believe that relationships outside the primary caregiver can make a difference by providing a site where individuals can engage in and construct alternative attachment relationships that may compensate for existing attachment deficiencies (Elias & Haynes, 2008). This provides support in conjunction with Bowlby's (1980) idea of *accommodation,* which describes the revision

process directed to working models when significant emotional experiences or new relationships serve to disconfirm earlier models (Fuller & Fincham, 1995). Fuller and Fincham (1995) suggest that the revision of working models is perhaps most likely during periods of extreme change, such as life transition or the loss or gain of an attachment relationship. Care-system-oriented attachment research suggests this is essential information that ought to inform the development of relationships in care situations (Schofield & Beek, 2009, 2010).

Yet provision of an alternative figure that is likely to facilitate *accommodative adaptation* (Bowlby, 1980) is not an absolute certainty. Bowlby noted that some aspects of working models may be more open to change than others and that individuals will likely vary in the extent to which their working models are open to revision (Fuller & Fincham, 1995). This hints at limits for how much revision of working models can occur and Fuller and Finchman (1995) further explain that the processes through which accommodation takes place are little understood. Pearce (2009) offered explanation for the difficulty this poses to attempts to rework attachment representations: as individuals with compromised attachments often lack the capacity for genuine and wholesome relationships, traditional human-relationship-based therapies may prove ineffective. Individuals with a compromised attachment may have what is called a 'reversal of learning', which means that attempts to make them feel close to someone are scary and yet being distanced is safe. About compromised attachment and traditional therapies, Pearce (2009) suggested the 'reversal of learning' phenomenon is a primary reason why traditional treatment models generally fail to benefit children with insecure attachments. The same contingencies that extinguish behaviour in an adequately attached child may reinforce the behaviour in a child with a compromised attachment. It is therefore pertinent to consider that while there is potential to undergo revisions of working models (Bowlby, 1980; Fuller & Fincham, 1995), it is noted that traditional human-lead therapeutic interventions may face some significant challenges (c.f. Pearce, 2009).

Crowell, Treboux and Waters' (2002) findings however, suggest that once a secure representation is achieved or is clearly known and understood, its stability is great and very difficult to unlearn or undermine. Although Hoffman et al (2006) had one child in their sample move from a secure rating to an insecure rating, Crowell et al (2002) note that insecure attachment representations within their sample were less stable and more susceptible to change than secure representations, offering hope to therapeutic interventions aimed at assisting individuals with the revision of insecurities and the accommodation of secure representations (Bowlby, 1980). Important contextually for this research, although concerning young married adults, Crowell et al (2002) highlight that representational change from insecure to secure relationships occurred when the participants were away from former settings and exposed to new circumstances that required the accommodation of new representations in response to environmental differences where previously learned adaptive strategies were no longer necessary. Bowlby (1980) discussed these changes in relation to environmental and working model incongruities while other researchers discuss the relative utility of insecure attachment strategies in altered environments, but central to all explanations for developing security is a sense of secure-consistency about the environment that leads to the accommodation of new attachment representations. If insecure attachment styles are to be revised and updated with more secure representations, then environmental characteristics must reflect security and render insecure strategies redundant (Hoffman et al, 2006; Parish-Plass, 2008; Pearce, 2009; Travis et al, 2001).

Crowell et al (2002) indicate that people with compromised attachments faced with interactions that differ from their expectations, may reframe their perceptions regarding the trustworthiness and availability of attachment figures, particularly when those interactions occur in the context of a satisfying relationship. Their findings also support Bowlby's (1973) reasons for distancing his theorisations from intrapsychic ideas

and highlight the actual experiences (and the perceptions of those) are the critical factors in shaping and altering attachment representations.

Consequently, interventions have considered the means by which attachment styles may be influenced and therapeutic literature developed Bowlby's suggestion that therapists could play critical roles of offering clients *actual experiences* of a secure-base, which in turn could influence the individual's global attachment representations. Travis, Binder, Bliwise and Horne-Moyer's (2001) clinical investigation offered supportive results for this supposition. They found that clients' attachment styles, measured at pre-treatment and post-treatment intervals, moved towards more secure ratings, as measured by the Bartholomew and Horowitz' (1991) dimensional measure of attachment, following psychotherapy sessions to address relationship difficulties. Twenty-four per cent of the sample developed main-ratings of security and although 76% of the sample returned insecure ratings post-treatment, the extent of their insecurity had decreased (Travis et al, 2001). The authors note how different insecure styles advance towards security at different rates and indicate that the rate of change, particularly for dismissive or preoccupied clients occurs at slower rates and is reliant upon the therapist's skills in dealing with difficulties in the therapeutic process. These findings indicate, however, that attachment-style-change may be considered a more dynamic and less of a strictly categorical classification, enabling advances *towards* secure-ratings to be noted even when subjects maintain a dominant insecure attachment style (Travis et al, 2001). Clearly this information has implications for therapeutic interventions interested in attachment styles, where the intention is to assist individuals to develop, or at least move towards more secure attachment representations for all the benefits to mental, social and emotional health that research has associated with secure attachments (Hoffman et al, 2006).

The Value of Re-Working Insecure Attachment Patterns

Although only estimation, research suggests that circa 60% of the population hold secure attachment styles, leaving c.40% with non-secure styles (Sonkin, 2009). Collectively, insecure attachments are attributed to poorer mental and physical health (Hoffman, 2006), with correlations identified to depression (Sund & Wichstrom, 2002), chronic anxiety (Warren, Huston, Egeland & Sroufe, 1997), susceptibility to physical illness (Maunder & Hunter, 2008) and reduced feeling of self worth (Roberts, Gotlib & Cassel, 1996). Travis et al (2001) indicate that different styles of insecurity, and the extent of each, lead to different types of difficulty, although there are common troubles inherent within each of the main categorised insecurities.

To explain, anxious-ambivalent individuals have been characterised by their preoccupation with the attachment figure's availability (see page 27) and their attachment system is thus activated for large periods of time. This hypervigilance has been shown to decrease exploratory behaviours important for development as well as self-esteem and confidence, with levels far diminished by comparison to their more secure counterparts (Van den Boom, 1994). In the earlier years, this has been associated with reduced cognitive development as much focus and attention is directed toward relationship maintenance ahead of engagement with their surroundings and developing a sense of mastery within their environment (Van den Boom, 1994). The anxious-ambivalent individual's hypervigilance detracts greatly from the development of deeper relationships and their actions within relationships has also been demonstrated to impact upon the way new others view them; those others distancing themselves from the anxious individual due to the nature of their relationship navigation techniques (Dykas, Ziv & Cassidy, 2008)

For insecure-avoidant children, their learned experiences of the unavailable and/or unresponsive caregiver lead to a guise of independence and emotional stability (Sonkin, 2005). Despite this appearance, the child still experiences the stress but has

developed strategies that cloak those emotions in what researchers have termed the deactivation of the attachment system (Sonkin, 2005). One of the resulting challenges for avoidant individuals to face is the feeling of isolation at times of distress (Roberts et al, 1996). The perceived rejection from caregivers not only instils the belief that others are unavailable it concomitantly establishes feelings of reduced self-worth and poorer self-image (Brown, Bifulco, Harris & Bridge, 1986).

Disorganised attachments are the style of insecurity most associated with psychopathologies owing to the individual's absence of a coherent strategy for managing distress (Cassidy & Mohr, 2001). Demonstrated to have a high correlation with experiences of abuse and the receiving of inappropriate care, disorganised children do not fit the categorical descriptions of Ainsworth et al's (1969) identified styles (Main & Solomon, 1990); they are trapped in what Van Ijzendoorn and Schuengel (1999) referred to as an irresolvable-paradox of approach-avoidance. These children both fear and desire the caregiver in a dilemma from which the child is unable to derive a sense of safety. Resulting from the continual activation and unresolved condition of the attachment system in these children, distress is a salient emotion during developmental stages of life. This has been extensively associated with psychopathology in later years (e.g. Cassidy & Mohr, 2001).

Despite each of the categorised insecurities differing in their psychological preoccupations and subsequent behavioural manifestations, central to each of the insecure-styles is the lack of security, trust and faith that the caregiver(s) will be there to provide assistance in times of personal distress, helping to soothe the individual and respond to their needs (Travis et al, 2001). That absence of felt security impacts development and can, without environmental alterations, establish pervasive negative depictions of the self and other people with whom the insecure individual shares their world.

The rationale for attachment based therapeutic work, therefore, is to move individuals toward more secure orientations so that optimal health may be realised (Hoffman, Marvin, Cooper & Powell, 2006). There is a wealth of research demonstrating that attachment quality has a significant influence on the child's successful development toward healthy and secure adulthood (Kobak, Cassidy, Lyons-Ruth & Ziv, 2006; Sroufe, Egeland, Carlson & Collins, 2005; Thompson, 1999; Warren et al, 1997) and while the insecure attachment styles are not indicators of psychopathology themselves, they are considered to heighten the risk of future pathologies (Hoffman et al, 2006). Given the substantial body of evidence that insecure attachments are risk factors for future psychopathologies, formal and informal therapeutic interventions to reduce incidences of insecure attachments are particularly important (Berlin, Ziv, Amaya-Jackson & Greenberg, 2005; Hoffman et al, 2006; Pearce, 2009; Schofield & Beek, 2010).

At the individual level developing more secure attachment representations has been evidenced to assist with greater levels of self and interpersonal confidence (Mikulincer, 1995). Mikulincer (1995) presented empirical data to emphasise the connection between the internalization of attachment experiences and the construction of the self, demonstrating that secure individuals "had more balanced, complex and coherent self-structure than insecure persons" (p.1203). Despite also finding that avoidant individuals had a stronger sense of self when compared to anxious-ambivalent individuals, Mikulincer (1995) pointed out that avoidantly attached persons appear to lack balance in the overall coherence of the self and ability to identify negative self-characteristics, most likely because of their habitual coping strategies for dealing with negative self-perceptions.

Mikulincer and Orbach (1995) termed this positive self-structure within avoidant individuals, non-differentiated defensiveness. It explicates the suppression of negative self-attributes and greater accessibility of positive self-attributes as a defensive

technique for avoidant persons to cope with their basic insecurities and felt-isolation. Mikulincer and Orbach (1995) suggested therefore, that although avoidant persons seemingly report more positive self-structure it might not imply the existence of a truly high self-esteem, rather it serves as a defensive mechanism against the experience of rejection by others. That felt rejection, which characterises the internalised experiences of an avoidant individual (Shaver & Hazan, 1993), is considered attributable to feelings that the self is not someone who significant others think they ought to be or even who they had hoped for. Such feelings of decreased worth may cause the establishment of standards that are so disparate from the actual self such that they may never be attained, fulfilling perceptions that significant others have a negative view of the self (Mikuliner, 1995). With this in mind, the value of breaking through the defensive shell of an avoidant person is going to be profitable for a reduction in pre-emptive defensive responses and develop opportunity for more intimate relationship connection (Shaver & Hazan, 1993).

Hoffman et al (2006) suggest this is achievable through the establishment of a secure environment through which the child is able to explore those facets of the self that habitually have been closed off. By creating secure conditions, previously learned insecurities exhibit reasonable malleability in response to more favourable care giving experiences (Hoffman et al, 2006). The value of reworking this insecurity is the development of greater self-confidence and raising perceptions of the self so the individual may perceive themselves as not only loveable, but also deserving of another's love and from this seminal step, the establishment of more secure relationship interactions are thought more likely (Dykas et al, 2008).

External to the internalised ramifications of insecure attachments, physical health has been linked with attachment style. Notably, securely attached children have been less associated with illnesses (Maunder & Hunter, 2008). The authors suggest that prolonged psychological and physiological over-arousal leads to heightened

susceptibility of illness as regulatory systems in the body become fatigued. Despite such a correlation there is a paucity of research associated with increasing attachment security and subsequent decrements in physical illness, making these associations difficult to substantiate by comparison. Additionally, Taylor, Mann, White and Goldberg (2000) investigated this issue from a comparative perspective, suggesting further analysis for why insecure individuals seemingly suffer greater levels of physical illness. It was found that insecure attachment styles correlated within their sample with the presentation of unexplained physical symptoms when compared with the more secure attachment style correlates with organic physical symptoms. The authors suggest a model in which children learn that physical illness is more effective at eliciting care than emotional distresses; it is an adaptive strategy for eliciting care responses (Taylor et al, 2000).

Beyond the direct benefits to the individual of becoming more secure, much therapeutic work has sought to 'interrupt' the intergenerational transmission of insecure attachments (e.g. Parish-Plass, 2008; Van Ijzendoorn & Bakermans-Kranenburg, 1997). Research has demonstrated the pervasive associations between parental styles of attachment and infant classifications. This occurrence is due to the parent reproducing their understandings of the caregiver-infant bond, learned through their interactions with their caregiver (Van IJzendoorn & Bakermans-Kranenburg, 1997). The reproduction of insecurities is thus a trans-generational issue.

Adult attachment literature has further demonstrated the influence of attachment styles upon romantic relationship performance and satisfaction (e.g. Pistole, 1989; Collins & Read, 1990). Stackert and Bursik's (2003) research amongst others, suggested insecure attachment styles were heavily associated with diminished romantic relationship satisfaction, which is concerning in light of Davila and Bradbury's (2001) research that found stable-unhappy marriages most often existed between partners where insecurities existed. It offers concern as their four-year longitudinal sample demonstrated that these insecure couples who experienced low levels or marital

satisfaction in conjunction with elevated levels of depressive symptoms were actually less likely to separate due to their preoccupied insecurities. This exposes individuals with insecurities to greater risk of remaining in relationships that foster negative emotions about the self and about others (Davila & Bradbury, 2001). While the authors note that early intervention may assist such people in relationships, earlier intervention, i.e. helping individuals from an earlier age, is even more likely to help reduce incidences of such relationships from forming.

Other research has indicated the influence of attachment styles on the interpretation of social interactions (e.g. Dykas, Ziv, & Cassidy, 2008; Gable, 2006; Meyer et al, 2005). Persons with avoidant insecurities tend to structure social activities that minimise closeness and in turn such persons derive more negative emotions (Tidwell, Reis & Shaver, 1996). Similarly, Locke (2008) explained the influence of attachment orientations on approach-avoidance interactions in university-aged peers. His findings suggest that attachment insecurities motivate social interaction drives in a way that reflects the avoidance or anxiety of the working model, leading to inter-personal confusion and negative ramifications of the social interaction. Put differently, persons with insecure attachments behave in accordance with their working model's expectations, which may lead to sub-optimal evaluations by those they attempt to interact with (Dykas et al, 2008; Locke, 2008). Locke's research compared results against secure individuals who developed more active approach motivations in social interactions and were received more positively by others most likely because they have had more frequent and consistent rewarding experiences (Locke, 2008).

Although not an exhaustive list of potential negative implications in light of insecure attachment styles, any of these aforementioned concepts in isolation would offer suitable justification for attempts to rework insecure working models. It seems sensible, worthy and positive to investigate ways in which to help improve the mental health, well-being and social functioning of individuals who currently hold internalised

working models of insecurity (Hoffman et al, 2006). Fortunately these identified difficulties pertaining to insecure attachment styles have the potential to be revised (Fuller & Fincham, 1995) and new internalisations of relationships developed that can lead to the *accommodation* (Bowlby, 1980) of new attachment styles. Given the pervasive influence of attachment insecurities, therapeutic professions consider it a worthwhile endeavour to make attempts to help individuals with insecure attachments move towards *more secure* orientations for the sake of their future mental, social and emotional health (Hoffman et al, 2006).

Owing to the importance of reducing the risk factors associated with insecure attachments, attempts to establish effective and replicable intervention methods, to support more adaptive developmental trajectories for children with compromised attachments, have become an increasing focus for research (Zeanah, 2009). Through understanding that attachment is a relationship-based construct the majority of interventions have been aimed at caregivers' and providing education about the recognition of and sensitivity towards infant attachment signals with the intent that creation of such an environment will facilitate the infant's attachment to the caregiver (Hoffman et al, 2006). Despite these increased efforts to develop robust interventions, Hoffman et al (2006) vehemently identify the need to understand the individual case for each child, understanding specifically what that child has learned about being in a relationship, and thus construct the intervention accordingly to respond to the specific caregiver-child affective and behavioural patterns.

Assessing who is an attachment figure

Attachment research has diverged since its early investigations into two distinct traditions (Carr, Colthurst, Coyle & Elliot, 2013), both of which have developed from the central tenets of Bowlby's original theory but have pursued attachment understandings through different measurement techniques. There is the more

psychodynamically influenced branch who concern themselves more with the interest of clinical problems, favouring interview measures and observations (Bartholomew & Shaver, 1998). The other branch of personality and social psychology places more emphasis upon social interactions with an interest in the socially constructed aspects of human interactions. Carr et al (2013) indicate that this divergence of attachment inquiry lead to different lines of research that are distinct in their conceptual underpinning, approaches to measurement and interpretations of data. As Carr et al (2013) did, I conceptualise attachment in a social psychological sense "as a style of relating that is both *reflected in* and *influenced by* the quality of close…relationships" (p.4).

Attachment relationships were first assessed and described through observational methods, the most notable of which was Ainsworth's Strange Situation Procedure (Ainsworth et al, 1978), which involved the observations of an infant's behaviours at the points of separation and reunion with their caregiver. Through the range of behaviours exhibited, Ainsworth and her colleagues were able to identify three 'attachment styles' (later extended to include the disorganised classification for children whose behaviour did not accurately fit Ainsworth's three categories (Main & Solomon, 1990) that remain largely prevalent in understandings today. Attachment Theory faces one of its larger challenges within the realm of assessment measures and the varying development of approaches have shaped contemporary understandings of how scholars might first *judge* and subsequently *measure* attachment relationships (Carr & Rockett, 2013).

In development of the seminal observational procedures and in accordance with the widening interest of attachment relationships beyond childhood, social-psychological researchers designed measures that heavily utilised self-report techniques (e.g. West et al, 1978 – AAQ; Brennan, Clark & Shaver, 1998 – ECR; Fraley, Waller & Brennan, 2000 – ECR-R) while more psychodynamically motivated researchers

developed detailed interview methods (e.g. George, Kaplan & Main, 1985 - Adult Attachment Interview – (AAI).

Within the social-psychological realm, multiple self-report measures were constructed and utilised within large sample sizes, increasing response numbers and decreasing the commitment of time required for observational procedures. In addition, child centred measures remained less reliant on the child's conveyance and assessed attachment through Picture Response (e.g. Hansburg, 1972 - SAT), and Narrative Analysis (e.g. Goldwyn, Green, Stanley & Smith, 2000 – MCAST), removing the decision making onus from the child and placing it with the researcher. With each assessment procedure came the motivation to elicit a better or new contributory understanding of attachment representations, yet despite extensive variations in method, ultimately all the measures sought to tap and understand the internal construct of the working model.

Yet the validity of these investigations has posed problems for social-psychological attachment researchers as questions are raised about the learning effect informing the working model versus the actual figure of attachment – the conscious appraisal of one's relationships. Knowing whether participants rate their *actual* or their *fantasy* figures is not clear, but in defence of this subconsciously weighted critique, perhaps self-report measures may actually tap whom the individual utilises, having learned that their subconsciously activated figures are unsuitable or unresponsive to attachment behaviours. Self-report measures may also hold greater situational relevance. Of critical note, there has been and continues to be great debate surrounding attachment measurement through self-report, yet researchers appear united in their contemporary approaches to expand research measures and combine self-report in conjunction with other measures; mixed multiple-method investigations that help triangulate participant responses (Meijer et al, 2002).

Indeed, more recent investigations have attempted to explore the internal constructs of attachment relationships by looking at the subconscious activity of the brain, exploring a subliminal priming paradigm. For example, Mikulincer and his colleagues (e.g., Mikulincer, Birnbaum, Woddis & Nachmias, 2000; Mikulincer, Gillath & Shaver, 2002) have utilized this paradigm, reasoning that detection of threat on an *unconscious* level should automatically heighten cognitive accessibility of thoughts related to attachment figures. Subsequently, researchers have been able to explore whether there is a subconscious tendency to turn to specific attachment figures when threatened on a subliminal level (Carr & Rockett, 2013).

Carr and Landau (2012) extended the above investigation and sought to explore how self-reported differences between attachment figures related to variation in their cognitive accessibility in response to subliminal threat primes. The data from this study supported the possibility that for some individuals conscious evaluations of who their primary attachment figures appeared to be (according to Trinke & Bartholomew's, 1997 measure of attachment figures) did not provide an accurate indication of the significant others that were *unconsciously* considered to be of primary importance (i.e., those most cognitively accessible) when faced with threatening contexts subliminally. Specifically, participants showed increased accessibility to mothers' names in response to threat primes and this was even identified in individuals who did not *consciously* consider mothers to occupy a primary position in their attachment hierarchy. The study therefore supported recent arguments in the attachment literature suggesting that self-reports of attachment-related processes (such as *who* attachment figures are) may be disconnected from subconscious responses, perhaps due to defensive processes biasing self-reports on a conscious level (Bernier, Larose & Boivin, 2007).

Owing to the marked differences in conceptualisations within attachment theory, there ensues an irresolvable debate about measurement procedures. There is such a wealth of avenues that attachment researchers have developed the theory that no single

method can be appropriate for all; the area of investigation must be duly considered and the most suitable and useful methods employed.

However, one of the more important considerations is the intended use of a measurement outcome. If that desired outcome is diagnostic, and the diagnosis will lead to the implementation of a care plan, then the most suitable tool is the one to provide the most accurate and detailed *diagnosis*. For instance, the construction of care plans for the long-term placement of children would require intricate consideration of the child's attachment history, of their specific attachment style and a careful analysis of their internal-working-models to inform as much as possible, the best type of care to support that individual (Dance et al, 2010). Conversely, if the intention were to gain a more broad understanding of a child's attachment orientations and identify whether they had formed an attachment such intensive investigation would be unnecessary.

Subliminal priming procedures have demonstrated a persuasion to turn attention toward the mother when presented with threatening words or images, more so than neutral priming terms (Carr & Landau, 2012). This has suggested that we are perhaps wired to respond with immediacy to our mothers. And indeed, this would align with the theoretical positioning of early attachment research that suggests we are biologically driven to one specific other. However, researchers from other methodological persuasions may utilise self-report measures to assess attachment relationships, asking the person to consciously identify who they consider their closest others (e.g. Bifulco, 2008; West et al, 1998) with the measure then in place to assess the quality of those consciously identified figures.

Again, criticism of self-reports arises through fantasy response, where it is suggested individuals present the figures they perhaps would like to fulfil their attachment needs, yet fail to do so. That criticism heralds from researchers who opt for psychoanalytical access to attachment hierarchies. Yet Carr and Rockett (2013) suggest as part of their explication of assessment complexities that self-report measures might be

suitable for deciphering who the child actually turns to at times of need (the real-life application of conscious evaluations), contesting whether subliminal measures are able to portray objective and subjective attachment figures.

Social learning, it is posited, might play a role in who the individual selects as their attachment figure(s). Although priming may show a persuasion to the mother (or any other select other), the child may have learned through experience that they are not accessible. Consequently, they have had to adjust their attachment behavioural systems and strategies to rely on other people beyond their hard-wired responses; which is perhaps all that is demonstrated through the subliminal methods.

To reiterate, this research project is situated within a social-psychological framework, understanding attachment "as a style of relating that is both *reflected in* and *influenced by* the quality of close…relationships" (Carr et al, 2013 p.4). This understanding of attachment from a social-psychological perspective necessarily considers attachment relationships in an inter-connected sense and this has delivered the research construction to consider methods of measurement that are also cognisant of this conceptualisation. Accordingly, a self-report measure was employed as a means of gathering children's conscious evaluations of their placement's relationship partners. In light of the sample's inability to access other figures, focus was limited to understanding how they felt about the actual people in their environment, rendering the data reflective of actual relational experiences.

The intention of this research was not to categorise attachment styles, nor be diagnostic in its understanding of children's relationships. Rather its intention was to observe the presence of an attachment bond and monitor its development over time. Important to note is the lack of intent to classify attachment styles in light of children's responses to the multiple methods of data collection. Of absolute focus within this research was the longitudinal development of attachment relationships.

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Attachment Theory and Foster Care

Fostering:

One domain where attachment theory has much to offer is Foster Care. The foster system cares for tens-of-thousands of children each year and the trend is an overwhelming annual increase in numbers (Dance et al, 2010). Many children entering the care system do so for reasons of neglect or inappropriate parenting and so have experienced some degree of relationship instability or difficulty (Schofield & Beek, 2007, 2009). As such, the care system intends to operate as a theoretically informed structure, employing understandings of attachment theory in providing looked-after-children with secure-base intentions (Schofield & Beek, 2007, 2008).

"Attachment is as the heart of family life and at the heart of foster care. Attachment theory…provides a developmental framework for making sense of the behaviour and relationship strengths and difficulties that children bring from their complex backgrounds" (Schofield & Beek, 2007). These authors further explain that for children unable to be raised within their birth families foster care represents an intervention whereby another set of parents, another family is provided for children, of whom, many are likely to have experienced difficult or damaging relationship histories. The social, emotional and relationship-focused environment created by the foster carer and families has a deep impact on the looked-after child's development (Schofield & Beek, 2010) and particularly in light of troubled histories it is particularly important that children are placed in high quality care-giving situations. Carers in turn, must be mindful that children who have suffered relationship terminations and troubled early years bring to their placement a wealth of troubling care-giving experiences and expectations.

The care system is thus in a position of not only providing care for these children, but concomitantly helping them find their way back to healthy pathways of development for more secure futures (Nowacki, & Schoelmerich, 2010). Lee (2012)

furthers this conceptualisation and contends that the requirement for the foster-care system is to be developed as a form of *continual therapy*; the care environment should utilise attachment principles to provide a twenty-four hour therapeutic intervention. Such a principle is provided in light of attachment-based research with children in institutionalised, foster and adoptive care situations that reveal a notion of plasticity in the attachment system beyond the early childhood and into middle childhood (Nowacki & Schoelmerich, 2010). It is suggested that children in care have sound potential for working through their internalised perceptions of themselves and others. Some findings suggest that children taken into care due to abusive or neglecting past relationships are able to benefit from placements with new caring and stable families (Hodges & Tizard, 1989; Rutter, 2006), yet other research does demonstrate that children in care might make poorer social adjustments when compared to peers who have grown up consistently with their own family (Miller, Fan, Christensen, Grotevant & van Dulmen, 2000). It is the traumatic experiences prior to and including the separation from their own family that is suggested as a prominent reason for such differences (Nowacki & Schoelmerich, 2010).

In light of this, attachment theory offers a reasoned, organised understanding about children's psychological climates (R.Bowlby, 2004). It enables insightful profiling of children, which offers carers an awareness of children's fears and anxieties about relationships so they may respond in an appropriate and sensitive manner, cognisant of how the child in their care may perceive their actions. As theoretical framework, attachment theory offers the care system a *frame of reference* in which to conduct its work to the benefit of the children whom is assumes the care of (Schofield & Beek, 2009). It offers pertinent understandings about how prior maltreatment may bring about attachment difficulties, and comprehension of the theory may assist the creation of a quality relationship between the children and surrogate caregivers that will realign and support the child's developmental trajectory (Stovall-McClough & Dozier, 2004).

About the Fostering System

The challenge of the foster system is to "protect vulnerable children from further harm and, ideally, to provide them with a stable and safe home" (Stovall-McClough & Dozier, 2004 p.254). The issues that foster placements face are two-fold. First, research has identified that children removed from abusive, deleterious living situations are highly likely to have developed insecure attachment representations (Schofield & Beek, 2007). The behavioural strategies developed in response to their care experiences have implications for how they interpret the subsequent attempts of care provided by surrogate caregivers. Secondly, foster placements must also be aware of implications in light of disruptions to primary attachment relationships. Bowlby (1969) described the predictable behavioural responses to separation and contemporary research has explained how the infant's ability to cope with separations from the caregiver are intertwined with the capacity to hope for the caregiver's return (Stovall-McCLough & Dozier, 2004). For children entering the foster system, separation from the caregiver is often sudden, extending from weeks to years without expressed time boundaries. Duration of separation is thus unknown. Research has demonstrated the significant short- and long-term implications of losing a primary caregiver, but equally demonstrates the beneficial implications if suitable substitute caregivers can be provided (Dozier, Albus, Fisher & Sepulveda, 2002). This is precisely where the foster system is called to action.

However, being mindful of the impact of initial separations, the foster system where possible and suitable, tries to keep children with their family because it understands the difficulties children face when removed from their homes. Although in reference to the German system Nowacki & Schoelmerich (2010) highlight that placement only occurs when it is deemed absolutely necessary and other intervention attempts have failed, yet that ethos is mirrored through the UK system. Indeed, there are many reasons why authorities may need to take a child into care. Some children are

placed in temporary foster care if they themselves are carers or perhaps as respite for their parents if living situations are challenging or problematic. Other children may be placed due to parental death or ill health, with no prior problems in the parent-child relationship. However, there are many other children that comprise the majority of placements and are put in foster care because it is no longer safe for them to live with their birth parents due to incapability, abuse or neglect (62% of CIC, Fostering Network, 2013).

The British Association for Adoption and Fostering (BAAF, 2011) outline seven types of fostering, from *emergency* foster-care through to *long-tem and permanent* fostering placements. There is a great effort to investigate potential kinship fostering placements wherever possible, which involve children being looked after by people they already know, such as family members or close family friends. It is widely recognised that children taken into care *need* a stable home through which they are able to form close emotional relationships with new carers (Lee, 2012). Research has demonstrated that children placed in adoptive care seem to fare better in measures of attachment security (Stovall-McClough & Dozier, 2004) with further studies supporting this and contributing understanding that the younger a child is adopted, the more readily they seem to form stronger attachments (Rutter, 2006; Rutter, Pickles, Murray & Eaves, 2001). But this considers adoptive care, through which the legal status of the child changes but more importantly for the child's adaptation, the stability of the placements are considered relatively permanent: a contrasting process about which fostered children are often aware of their impending movements. For children who are not granted adoption, foster care is the most common type of placement although this is more clouded with necessary bureaucracy.

Selection of carers

Potential carers undergo assessments with social workers to establish their suitability to care for children unable to live with their birth families. These assessments focus upon the carer's abilities, situation, and motivations and in light of those assessments, necessary training is delivered by the social worker. Before the potential carer is accepted their report is submitted to the Independent Fostering Panel who make further assessments of their suitability to care for fostered children. Once a carer has been deemed suitable they receive regular visits from the fostering team and continue to do so from both the fostering team and the children's social worker once a placement has been established. A continual dialogue is established between the carer and the fostering team and the responsibility is placed upon the fostering team to support the carer and maintain quality assurance measures, most often achieved through an annual review and subsequent recommendations for further training where desired or required (BAAF Guidelines, 2013).

Investigations into foster placement stability have had insight to focus on the attachment orientations of the caregiver in the knowledge that care giving styles significantly link with the development of attachment representations in the receiver of the care. This is what Parish-Plass (2008) referred to as the intergenerational transmission of attachment styles. Van IJzendoorn, (1995) demonstrated how securely attached adults (to whom he refers to as *autonomous*) were most likely to correlate with securely attached children and that correspondence between caregiver and child attachment organisations were high amongst insecure orientations (Stovall-McClough & Dozier, 2004). There is evidence to suggest that foster carers be screened for their attachment orientations given the very high correspondence between caregiver-child organisations (Dance et al, 2010), but practicalities and necessary numbers of carers makes the realisation of this too idealistic.

As is the situation of twelve thousand more children taken into care this year (2013) and the numbers of available carers acutely reducing, there exists a concerning situation that causes the care system to utilise 'good enough' surrogate parents so that children can at least have a safe home away from their previous troublesome residences (Nick Dunster, 2013 Clinical Director of Advanced Foster Care, Personal Communication). He explained that carers are difficult to find, especially at the same rate as children entering the system, and therefore the system is under great pressure when selecting carers, placements and re-placements as necessary.

Matching Children with Placements

With adoptive processes there are great efforts to explore the feasibility of child – adoptive-parent dyads with the focus placed on the need to establish a sense of permanency within the child's living arrangement. As part of that process, consideration is given toward 'linking and matching' attachment styles so the relationships have as much chance of developing securely as can be regulated for (Dance et al, 2010). As such, the adoptive process can take long periods of time before a child sets up home with permanent surrogate parents.

Dissimilarly, children are placed in foster care without quite such extensive investigation into the suitability of a *match* between the child and the caregiver. In cases of emergency foster care, there exists neither the time nor the capacity for establishing such understandings; rather the child just needs a place to be looked after. Despite this need for speedy placement, some consideration is given to the suitability of children and carers for longer-term placements; those children, who, because of their experiences require more experienced and knowledgeable carers, are often placed in most appropriate homes. This is a necessary consideration, firstly *for the child* to receive the most appropriate and capable caregiver, and secondly so *the caregiver* opens their home to children who are suitable for their level of care-giving experience (Nick Dunster,

2012, Clinical Director for Advanced Foster Care: Personal Communication). Such strategic placing is deemed necessary for the likely success of long-term foster placements as the system recognises the difficulties confounded by continuing and frequent placement disruptions.

Children looked-after Statistics

According to the most recently released statistics, there are 67,050 children in the care of local-authorities as of March 31st 2012. **Gender:** That number comprised of 37,020 (55%) boys and 30,030 (45%) girls. **Age:** The greatest numbers of children in care are currently between the ages of 10 and 15 years (24,150; 36%). 4,190 (6%) children are below the age of 1 year whilst 12,430 (19%) children are aged 1-4 years. 12,700 are aged 5-9, and in addition to the largest sector by age, 13,580 (20%) are aged 16+. **Ethnicity:** 52,050 (78%) of all children in the UK care system are white British, forming by far the greatest ethnic group. 5,960 (9%) are of mixed race, 4,510 (7%) are Black or Black British, 2,820 (4%) are Asian and 1,290 (2%) are from other ethnic groups. **Placement Type:** Children living with foster carers are the most common placement for CIC, with 50,260 (75%) of children living with foster families. 5,930 (9%) live in secure units, children's homes or hostels and 3,600 (5%) continue living with parents, while 2,680 (4%) were placed for adoption. A further 2,340 (3%) live within another placement in the community whilst the final 1,980 children were placed in residential schools or other residential settings (Source: BAAF Statistics, 2012).

The Issue of Placement Instability

Attachment theory has much to offer the foster system. Understanding the theory's principles can facilitate effective care-giving approaches that offer specific and thought-out care plans to respond to the relationship experiences and expectations each child brings to the foster care environment (Schofield & Beek, 2007). Knowledge of

children's responses to certain care-giving climates can help carers be mindful of their actions and understand the child's reactions to ensure that emotional difficulties are understood and the development of more satisfactory interactions may be facilitated (Koren-Karie, Oppenheim, Yuval-Adler, & Mor, 2013).

Schofield and Beek's (2007) suggestion that the care system seeks to offer a secure-base for looked after children is in line with the care-system's aim of providing this opportunity for all children taken into care. Indeed, research clearly indicated that central to the formation of secure attachment relationship is stability and sensitivity in the child-caregiver dyad (Koren-Karie et al, 2013). This *stability* allows the child to formulate attachment representations that perceive the caregiver as being available, appropriately responsive to their needs and reliable; they can *trust* the caregiver to help them with their troubles and fears (Lee, 2012).

Consistency and stability are crucial elements for any relationship to become trusted. Linares (2006) suggested that many children living in the foster system have experienced at least a few or perhaps several cases of instability through their earlier years. She explains how, in terms of self-concept, depression, attention, anxiety, violence and attachment, such experiences of instability can lead to children internalising their relationship turbulence and suffering psychologically as a result. Indeed, her research across the US fostered population suggests that 62% of children enter foster care already with at least one psychiatric disorder label assigned to them. Schofield and Beek's (2007) reports suggest similar numbers of children enter the care system with histories of neglectful relationships within the UK, so the system is contending with a majority whom bring with them these batteries of troubling care-giving experiences. Lee (2012) candidly describes how the care system's responsibility is thus to care for these children and having terminated their familial relationships it is imperative that a secure base is *actually* provided for these individuals and to bring an end to their perceptions that relationships are predictably lacking continuity and reward.

The surrogate caregiver's duties must be enacted thoroughly (Koren-Karie et al, 2013; Stovall-McClough & Dozier, 2004).

While the goal of foster care is indeed commendable, vital and therapeutic for many, there are notable factors that make it a terrifying and harmful system for abandoned, neglected and abused children to enter. Linares' (2006) research findings about placement stability were comparable to incidences in the UK; it was found that children were moved an average of 3 times per year. Furthermore, 28% of the children in the sample moved five times or more, with higher incidences of placement moves occurring in middle childhood. This huge number of placement moves may deepen or reinforce prior feelings of abandonment and neglect and many who have experienced such placement instability have internalised these feelings with diminished self-worth, perceiving themselves unworthy of another person's love and care (Halfon, Mendonca & Berkowitz, 1995; Pilowsky, 1995). For the child, this likely translates to starting a new placement with a stronger feeling of mistrust toward caregivers and / or a diminished value of the self (Lee, 2012; Pilowsky, 1995) in light of their recurring rejections. Despite best efforts and best intentions to stabilise children's living experiences, the current foster system with its frequent re-placement patterns is perhaps unwittingly reproducing a cycle of felt neglect. Goldsmith et al (2004) explain that "while there may be necessary and compelling reasons to change a child's placement, such changes must take into account the fact that as children are exposed to repeated placements, they may give up the hope of ever forming a secure attachment…" (p.4).

It was earlier discussed within the attachment literature that working models may be subject to revision and that with environmental and relationship incongruities that provoke a re-conceptualisation of the existing working model(s) it may be possible to rework attachment patterns. Most consideration is given to making relationships more secure, but the notion of change is also possible within a reverse dynamic (see Hoffman et al, 2006). Securely attached individuals, if exposed to repeated negative experiences

and relationship instability, are thought to also be susceptible to working model adaptations and thus it is pertinent to consider all children entering the foster system, even those who are thought to hold secure attachment styles, to be cared for with consistency and stability.

Multiple research investigations have highlighted that such experiences of continual re-placement lead to a heightened fear of rejection where the child feels continually unsettled and anxious (Nowacki & Schoelmerich, 2010; Smith, Stormshak, Chamberlain & Bridges-Whaley, 2001; Unrau, 2007). Their inability to relax and be free from stress coupled with their accentuated apprehension around forming close relationships renders many of these children with a far greater susceptibility to depressive episodes, chronic stress and to have significantly reduced levels of self-esteem (Goldsmith et al, 2004; Sroufe et al, 2000; Unrau, 2007). The personal climates of continually re-moved children have also been heavily linked with social deviance and negative social functioning, including violence and aggression towards others and the self (Linares, 2006).

It was Newton, Litrownik and Landsverk (2000) who called for a more wholesome understanding of the implications of placement moves. They argued that problem behaviours are also a consequence as well as a cause of placement disruption and therefore there is great risk of perpetuating cycles that fail to tackle the underlying issues. Schofield and Beek (2007) offered candid explanation for such consequences, advising the foster-care literature that for some children, problem behaviours are a means of protection; they serve to bring about environmental predictability and keep relationships at a safe distance. But Newton et al (2000) also advise that consideration be given to the children who do not evidence problem behaviours and warn that cooperative apathetic behaviours could also constitute the expression of neglected internal climates; the response is that of self-defeating behaviours. Further, Unrau (2007) directed research to the importance of the child's perception of placement

success, advising the necessity for understanding the experience from the point of view of the child in efforts to consider the child's interpretation of events and care-receiving experiences.

It is evident that fostered children need a sense of stability from which they are able to develop positive perceptions of the self and build trust in others with whom they will form their close relationships. But it needs to be more than simply reducing the number of placement changes; one placement breakdown is enough to enforce damage that could lead to further future difficulties (Smith et al, 2001; Unrau, 2007). Such children have a need to establish their trusting abilities through a consistent and caring relationship that affords them the opportunity to revise their working models from insecure to more-secure and reconceptualise their navigation of close relationships and associated emotions (Lee, 2012).

Attachment Troubles in the Foster System

Perhaps the most challenging issue that insecurely attached children must navigate whilst part of the fostering process is relationship disruption (Urnau, 2007). Essentially this is the problematic nature of the inconsistencies experienced through care placement permanence. Given the number of placement moves a child is likely to experience, this amounts to recurring expectations of desertion and neglect (Fanshel et al, 1990; Norgate et al, 2012). Yet it is a stark fact that the system in place to help them with finding a sense of security may often be one that causes further unsettlement. Foster placement disruption has been a regular occurrence for children for many decades, with researchers already highlighting the numerous consistent problems of this happening, for the self and for interactions with others (see Berrick et al, 1998; Palmer, 1996; Staff & Fein, 1995; Stone & Stone, 1983). Smith et al (2001) further explained that rates of placement disruption increased in line with time spent in care, suggesting placement stability does not necessarily settle with time.

It remains a similar situation today, a decade later, with some investigations still presenting great incidences of placement disruption (Norgate, Warhurst, Osborne & Traill, 2012). A growing body of research had exposed more about the links between placement disruption and problems with attachment and emotional, behavioural and social problems (Fanshel et al, 1990), which is distressing with the knowledge that "each new disruption provides an increased risk for subsequent disruptions with new caregivers" (Smith et al, 2001 p.200). The cycle of placement instability is readily perpetuated.

A fall-out of children's attachment insecurities might be the presentation of problematic behaviours that is both challenging to deal with and, in the case of older children, perhaps intimidating for the caregivers. It must be understood that in many cases this is a protective function of the children (Pearce, 2009). Their behaviour seeks to test whether the caregiver is really going to care for them, or whether, when things are bad, the child will be returned once again to a state of unanswered distress. Whilst Schofield and Beek (2007) explain that attachment theory offers a logical explanation for why children behave in a way that provokes this rejection, they further explained how it is a comfort to the children to ascertain this air of predictability about their environment. With all the uncertainty they face regarding placement attainment and maintenance, one thing the child remains able to control is their behaviour, and with that, they can use it to elicit predictable responses.

It is not just the short-term implications for children in care that should be considered. Schofield and Beek (2007) bring attention to the long-term implications of growing up in the care system and the fact that children who mature out of the system have around a 50/50 chance of their own children being taken into care at some stage of their development. Thus the care system must employ a lens that offers clarity for both the present and the future; to understand the best course of action to support these

children not only during their time in care, but to realign their developmental trajectories to assist them across the lifespan (Travis et al, 2001).

Furthermore, children's attachment relationships may face difficulties from the care-system itself. Norgate et al (2012) explored the reasoning for excessive placement instability and highlighted issues of carer inexperience of managing problem behaviours, limited placement possibilities and concomitant over-hasty placement decisions due to strict time restrictions as pertinent factors leading to the breakdown of foster placements. These are deleterious to the children's development yet completely outside their locus of control. Norgate et al (2012) called for improved practices to ensure greater support for foster carers and significant improvements to the recruitment and retention of much needed carers.

Attachment Theory continues to offer understandings of relationship development in relation to the healthy progress of children in foster care (Lee, 2012). By utilising ideas from attachment theory the system is able to introduce, monitor and refine its practices to the benefit of the children it cares for. Secure-base parenting has been implemented as a means of enhancing security in the child-caregiver dynamic (Schofield & Beek, 2009). These authors use attachment theory to propose an inter-connected model of caregiver behaviour that can help establish an environment in which children are most likely to ascertain feelings of security. Central to this model are relationship characteristics (Availability, Sensitivity, Acceptance, Co-operation, and Family Membership), which must be delivered consistently and through an interconnected manner that creates a secure and nurturing family environment for the child (Schofield & Beek, 2009).

In a similar fashion, attachment theorists have also provided information that assists the foster system with a comparable focus on the provision of secure relationships. Hoffman et al (2006) developed an intervention called the Circle of Security, of which the focus was on caregivers and their provision of Secure Base and

Safe Haven behavioural characteristics. Equal to Schofield and Beek (2009) and Lee (2012), Hoffman et al (2006) noted the importance of *caregiver education* for recognising and responding to children's distress signals, explicating the importance of carers to become attuned with the children and their needs. In this manner, knowledge of attachment theory offers particularly useful ideas for how to create an environment in which the conditions are most appropriate for the children to develop.

Difficulties Children Confront

Attachment theory offers great insight to the mental health of children, and it was the pathological responses of children following separation from their mothers that first led Bowlby to conceptualise their internal experiences (Bretherton, 1992). What these understandings of infant mental health enable is a clear frame of reference by which we are able to facilitate an environment that is cleverly cognisant of children's mental health concerns and offers them a means through which to regain or learn the tenets of positive mental health as detailed by Zeanah (2009).

It is imperative to convey that a child living in care does not by default face a certain catalogue of problems. Foster situations, particularly long term fostering, or situations where the child has come from a secure background, may provide an environment in which the child thrives and benefits from being in a nurturing and caring home, much like a child living with their biological parents might. Whether living with biological parents or in care, a child may experience satisfying and secure relationships, or they may receive less positive experiences. The statistics simply show that children in care are more likely to have experienced negative relationships in the past.

However, in a 2010 Ofsted report it was highlighted that some of the problems children in care face in addition to their relational difficulties, are based around the expected perceptions of others. Seventy five per cent of the children in care who were interviewed by Ofsted reported a fear of prejudice and of being treated 'differently'

(Ofsted, 2010). The children felt they had fewer best friends compared to children living with their biological parents because they are 'bad people' and believed their looked-after status would even harm their employability. Newton, Litrownik and Landsverk (2000) suggest there are too many misconceptions about children in care, which undoubtedly feeds their negative perceptions of others. Yet in support of those children, the authors make clear that dealing with social prejudices is not an additional challenge these children should have to face.

From a relationship perspective, children in care may face the challenge of unstable, inconsistent and unpredictable changes in living arrangements (Norgate et al, 2012) and this directly influences their inter-personal relationships. Children born into and subsequently living with their biological family need never think about the longevity of their childhood home; it is taken for granted that they live and will remain living with their biological parents. However, children who have experienced change in their living situation may become pre-occupied with foreseeing change, maintaining vigilance over their next potential move (Schofield, Beek & Ward, 2012).

Such instability and lack of predictability can cause the individual extreme and potent levels of anxiety that may be internalised as negative feelings about the self (Warren et al, 1997). Children may associate their neglect and relational inconsistency to internal factors such as 'being a bad person' or 'not worthy of another's love and care' (Pearce, 2000). The constant fear of abandonment may lead to depressive symptoms, poor self-worth, higher incidences of physical ill-health, and a withdrawal from meaningful social interaction (c.f. Newton et al, 2000). As with the cycle of positive relationship experience and engagement, individuals experiencing negative relationships could be at risk of a perpetuating cycle of negative relationships (Van Ijzendoorn & Bakermans-Kranenburg, 1997)

Bruskas (2008) suggests that children often experience being placed in care as a loss of control over one's environment with living and family arrangements under the

control of the authorities. To that end, children living within the care system might display challenging social behaviours. While some adults believe this is a cry for attention, bringing some contact from adults and others around them, others believe it is the search for environmental and social control (Carr, 1994; Rincover & Devaney, 1982). Being able to predict the outcome of one's actions is comforting for it demonstrates an element of personal control over one's life (Carr, 1994). Therefore, children who have been abandoned may exhibit negative behaviours or partake in deviance simply to generate a reaction that they are able to predict (Pearce, 2000). At the centre of the child they do not seek further punishment and rejection, but it is at least a consistent and predictable response; as Schofield and Beek (2007) point out: it is important to understand that some children "behave in social situations that provoke that rejection that they most fear".

Although children in foster care may bring with them multiple difficulties in light of their earlier relationships and subsequent separation from their family, one of the greatest challenges they face is a lack of stability in their new lives and relationships (Norgate et al, 2012). This actual and felt inconsistency leads to harmful angst and poorer development, with much research indicating problems with subsequent mental health (Bruskas, 2008).

Defining 'Mental Health' in the Context of this Investigation

Marie Jahoda (1980) suggested there is hardly a term in psychological thought as vague, elusive and ambiguous as the term 'mental health'. That it means many things to many people is difficult enough. That many people use it without even attempting to specify the idiosyncratic meaning the term has for them makes the situation worse, both for those who wish to promote mental health and for those who wish to introduce concern with mental health into systematic psychological theory and research. Many scholars would argue that the same hazy mixtures of understandings still exist today, yet

researchers now operate with clearer, but a greater number of opinions (Bentall, 2003); ultimately continuing although redesigning the uncertainty.

Mental health is also a significant problem in our society; its invisible nature, unlike a physical malady, creates a fear born of a lack of awareness (Keyes, 2002). The intangible aspects of mental health problems render them fearsome and stigmatic, less acceptable to the self and to the norm of society (Bentall, 2003). What is more, mental health is often perceived as a non-localised, all encompassing and permanent condition that is destined to deteriorate over time (Ceccoli, 2013). But mental health is more encompassing than just the major conditions that transcend lay understandings. Mental health is also the daily operation of mental processes, which, like a healthy physical body, need to be free from disease (Keyes, 2002; Zeanah, 2009).

Mental health may be conceptualised as a satisfactory psychological state of emotional and behavioural functioning. An individual's cognitive capabilities are free from disorders allowing the successful performance of mental function, productive and varied engagement, fulfilling relationships and the ability to adapt to change and cope with adversity (Bentall, 2003; Keyes, 2002). In cases where an individual is incapable of these states of mind, they may be considered to possess a mental ill-health.

Child mental health is perhaps more challenging to define, as Zeanah (2009), but also Zeanah, Gleason and Zeanah (2008), and Zero to Three (2001) all posit that key to child mental health is the young child's capacity to experience, regulate and express emotions, form close and secure relationships and explore the environment and learn. This is of utmost interest given that these are all critical elements to feature through attachment theory's security representations (c.f. Bowlby, 1969, 1973, and 1980; Schofield & Beek, 2010), the pursuit of which, is the basis of this research.

Through the foster process one of the central aims is to cater for the development of children's well-being and development and afford those children taken into care, a nurturing environment in which they may realise positive mental health

(Schofield & Beek, 2010). By considering the attachment histories of children in foster care, there is much research to assert that mental well-being is of critical concern to these children. Heavily associated with attachment (in)security is one's perception of self and of others in a way that influences positive engagement with social and personal relationships. The constructs created through negative relational experiences have far reaching implications for one's mental health (Keyes, 2002).

The Challenge with Human Intervention

To conceptualise the problematic nature of foster placements for children with attachment difficulties, one must consider the marriage of the learned object of fear and the planned assistance to overcome those insecurities. When the cause of distress is also the cure for the distress it is a problematic situation for the child to navigate – a sometimes irresolvable paradox (Van Ijzendoorn and Schuengel, 1999). Abuse and neglect often establishes an internalised mistrust of adults, and thus there exists a challenge in the attainment of future close relationships (Newton et al, 2000).

Of course, children with attachment difficulties cannot live without the care of more capable adults; indeed the care, love and consistent relationships is something attachment theory itself suggests we all seek and desire (Bretherton, 1992). However, it is worth considering that there are perhaps ways to make the fostering environment softer and less threatening for children with such difficulties. It might be possible to introduce a catalyst for human-human relationship development, through observations, learning trust, modelling behaviour or forming close personal relationships from which to revise the constructs of insecure working models (e.g. Parish-Plass, 2008).

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The Human-Animal Bond & Relationships in Foster Care: Anthrozoology

Human Animal bonds

Walsh (2009a) explained how the socialisation and subsequent domestication of animals was an interactive process born of mutual cooperation and co-evolution in light of a shared need for shelter, food and protection. Canines and felines readily became domesticated as co-workers, with dogs assisting herding and hunting, whilst cats controlled rodent numbers, responsible for spreading disease. Walsh noted that although these animals were subservient to their human controllers, there existed a strong relationship of companionship, signified by recorded mourning at the death of these animals and the spiritual beliefs regarding animals that cultures all around the world have held.

In more recent times, Serpell (1999) explains how the need for animals as co-workers became somewhat eclipsed by the need for pets for companionship. More households than ever before keep companion animals (63%) with most owners of social animals regarding their pets as friends (95%) and large numbers of those households identifying the animals as members of the family on par with human counterparts (83%) (Walsh, 2009b). The 2011 PetPlan consensus revealed similar statistics, but importantly it highlighted the function of pets in the lives of the respondents. Confidants, companions, social supports and important agents in social development were all responses from participants in the survey when describing the function of their pets, with numerous respondents describing the positive influences of pets on human social and emotional health (PetPlan, 2011).

While awareness of the human-animal bond has been acknowledged and utilised in treatments for centuries (Brodie & Biley, 1999), the systematic and strategic, academic investigation of it is something of relatively youthful fruition (Fine, 2011). Yet

the directed pursuit of understanding the connection between humans and animals - Anthrozoology - has become a serious subject of biological, social and psychological research endeavour in recent decades (Rollin, 2006), moving beyond the anecdotal and towards the empirical (Fine, 2006).

The impact of a human-animal relationship can have dramatic effects for humans at a psychological, physiological and sociological level (Fine, 2010). Research by Olex (2003) found people to exhibit greater levels of trust and be more open regarding feelings when in the presence of an animal, while Bernstein at al (2000) reported participants to interact at much deeper emotional levels with strangers more quickly whilst in the presence of an animal. Extensive research has shown that human-animal bonds promote greater positive social interactions and rapport building (Beck & Madresh, 2008; Bernstein et al, 2000; Horowitz, 2010; Kruger & Serpell, 2006, McNicholas & Collis, 2000; Sanders, 1999; Fine, 1999, 2011) leading to greater feelings of self-worth and self-esteem (Brodie & Biley, 1999; Serpell, 1999).

In psychological investigations the human-animal bond has been found to reduce feelings of anxiety, whilst physiological studies have demonstrated the physical presence of an animal to stimulate hormonal (oxytocin) release that reduces anxiety whilst concomitantly increasing positive affect (Barker et al, 2010). The same hormone-response system occurs to initiate bonding compulsions that strengthen emotion similarly to that between a mother and neonate (Barker et al, 2010). Similar social studies noted the influence of the bond upon the exhibition of parenting and care giving behaviours in humans, concluding that such bonding experiences likely strengthen as a result of repeated engagement (Askew, 1996; Prato-Previde et al, 2003). Recent attachment specific investigations have demonstrated the positive influence of both physical and cognitive presence of a companion animal on stressful task completion, indicating increased task performance and decreased physiological distress amongst a

sample of pet owners (Zilcha-Mano et al, 2012) and extending human-animal relationships into the arena of attachment theory (Kwong & Bartholomew, 2011).

Academic investigation has indicated the multifaceted nature of human-animal bonds given the diverse lenses through which they have been analysed (Fine, 2010). Levinson (1969), credited with the ignition of academic investigation in the field, suggested the human-animal bond had great influence on the psychological climate of humans (Brodie & Biley, 1999). His investigations indicated that such bonds had the capacity to unlock human emotion and bridge human-human relational difficulties through a process he termed environmental softening (Levinson, 1972). His later work explicated the inter-connected nature of human-animal bonds, proposing their influence over human personality development (Levinson, 1978). His research indicated that human-animals bonds benefit both sides of the dynamic by means of far greater complexity than Walsh's (2009a) early detailing of animal-domestication.

Evolution of the Human-Animal Bond

Human-animal relationships, although long established, have varied in their worth and value placement (Bustad & Hines, 1984). During the seventeenth century and the start of the so-called age of enlightenment, public perceptions of animals began to transform. According to historians (e.g. Bustad & Hines, 1984; Maehle, 1994; Thomas, 1983) there became a gradual increase in sympathetic attitudes towards animals and nature. During this period of human development, it was also acknowledged that animals had the potential to serve a socializing function. Locke (1999) suggested that animals are key in helping people develop tender feelings and a sense of responsibility for others. Emerging literature considered animals as useful facilitators in making children more caring; animals taught them to reflect upon and control their own ego driven characteristics (Myers, 1998). Changing social attitudes towards animals of this epoch were reflected within children's literature where an upsurge of themes devoted to caring

for animals arose: the intention of inculcating an ethic of kindness and gentleness (Grier, 1999; Ritvo, 1987).

Accordingly, the benefits of animals for humans health and function was expanding and their prominence as nurtured pets was expanding beyond the landed aristocracy into the middle and working classes (Walsh, 2009). Recognition of the therapeutic advantages of animals was also emerging and by the arrival of the nineteenth century, animals were being used in the treatment of the mentally ill (e.g. Tuke, 1813). Although solely anecdotal, patients were believed to benefit from the presence of the animals on the premise that social and benevolent feelings were evoked (Tuke, 1813). Patients appeared to develop better health and this led to the dawn of animal presence in mental asylums, offering patients the opportunity to care and nurture, to receive innocent pleasure, and to receive affection and interactions (Serpell, 1995). Smallholdings were established and patients made 'remarkable improvements, appearing generally happier and more relaxed' (Tuke, 1813). Concomitantly, animals were being utilised to help the physically infirm, as placements with animals was noted to bring about accelerated health recovery, particularly for the chronically ill. Modern research confirms earlier supposition, indicating the positive influence of animal companionship for the chronically ill (Spence & Kaiser, 2002), particularly noting the development of functional relationships (Heiman, 1965) and decreased experiences of stress (Vogel, Quigley & Anderson, 1983) as critical components within the recovery process.

During the course of the century following Tuke's introduction, the role of animals encountered inconsistent successes. Fine (2010) explained that health and safety regulations of institutions, joined with animal rights activists concerned about exploitation of animals, initiated a decline in the use of animals as mediators to better health.

Accordingly, animal welfare has been a constant concern for animal assisted interventions (Chu, Liu, Sun & Lin, 2009) but during the twentieth century an increasing

number of rehabilitative and restorative programmes turned to the developing field of Animal-Assisted-Interventions (Sobo, Eng & Kassity-Krich, 2006). Research focused on the rehabilitative function that animals might fulfil, and animals were credited for their enhancement of human lives, particularly as efficacious transitional aids (Cusack, 1988). On a larger scale, animals transcended human lives as daily companions and accordingly the number of households keeping pets for ameliorative purposes across the Western world has never been greater than it is in current times (Fine, 2010). McCulloch's (1984) social research indicated prevalence of companion animals as dual recipients and providers of love and affection that contribute positively to the emotional, social and often physical health of the owner.

Benefits of Human-Animal Relationships

As the literature approaches three decades of empirical research from diverse disciplines it has amounted considerable evidence that human–companion-animal interactions may contribute significantly to physical health (Friedman, Katcher, Lynch & Thomas, 1980), psychological health (Shiloh, Sorek & Turkel, 2003; Sobo et al, 2006) and social wellbeing (Okoniewski, 1984; Walsh, 2009a). Animal presence has been found to have a greater effect than that of a spouse or friend in reducing cardiovascular effects of stress (Allen, Blascovich & Mendes, 2002). Concomitantly, animal blood pressure was reduced when human and animal engaged in physical contact, indicating the mutual benefit to coexistence (Wells, 2009), which is essential for relationship maintenance. Further, Charnetsky, Riggers and Brennan's (2004) investigation demonstrated that affectionate contact between human and animal stimulated the release of neurochemicals associated with bonding, which enhanced positive affect and feelings of self-worth.

Socially, interactions with companion animals lead humans to experience new perceptions about the self; they focus less negatively on themselves and become more involved in non-threatening ways with their environment (Beck, 2005). Equally humans

develop new perceptions of others, reporting higher levels of friendliness and engaging in higher rates of positive social interactions (Serpell, 1998). There have been conflicting reports of the psychosocial benefits of companion animals (e.g. Parslow et al, 2005) but the predominant conclusion is that owners of companion animals have decreased susceptibility to psychosocial ill health (Fine, 2010).

Longitudinal research (e.g. Becker, 2002) provided more complex understandings about the nature of human-animal relationships, which reported that committed relationships (denoted as long-term emotional relationships) appeared to mediate stress, providing a buffering effect against distress with regular, pleasurable interactions that provided access to non-human engagements (Pedersen, Ihlebaek, Kirkevold, 2012). In addition, ownership of a companion animal reportedly lead to more regular exercise, greater social interactions and reduced feelings of isolation (Viruses-Ortega & Buela-Casals, 2006). Friedman and Tsai (2006) added to this that companion animals helped reduce feelings of anxiety and promoted feelings of self-worth and emotional validity within their sample (Katcher, 1983).

Yet the human-animal bond has yielded contradicting assumptions. Walsh (2009a) noted how past judgements considered people "whose closest relationships are with animals have…been viewed as strange or deficient, their affections pathologically misplaced. Strong attachments have been assumed to be symptomatic of an inability to forge healthy connections with humans…" (p.468). Recent research provided new focus on the types of relationships people maintain with animals and judgements have been reconsidered accordingly. Indeed, research by Kurdek (2008) and Hines (2003) has demonstrated how intense feelings for animals are not the result of deficiencies or cause for fearing pathology. Individuals who connect intimately with animals measure comparably highly on closeness with other people, have large capacities for compassion and love and well developed senses of empathy (Walsh, 2009a). Thus the value of the

human-animal bond has seen a prominent return to therapeutic literature (e.g. Parish-Plass, 2008).

However, there are some people who turn to animals as substitute figures, people with whom this research is centred. Marginalised or stigmatised individuals may more readily value the unconditional acceptance of animal companionship (Plackcy & Sakson, 2006). Elderly people who have lost social contact or are bound by a lack of mobility have been shown to embrace animal relationships (Cohen-Mansfield, Marx, Thein & Dakheel-Ali, 2010), as have parents who experience empty nest syndrome (Turner, 2005). Turner's (2005) investigation concerned the role of animals across the family life cycle. In particular she noted the changing nature of the animal companionship suggesting fluidity on the part of animals to respond to the needs of their human counterparts.

A substantial body of literature supports the positive influences that animals bring to human lives, but conclusions are not unanimous (e.g. Herzog, 2011; Nimer & Lundahl, 2007). Contradicting studies cite the greatest difficulty substantiating claims that animals assist human lives lies in the replication of results (Herzog, 2010). Providing a generalisable conclusion that animals are able to positively influence human lives seems unlikely, and therefore increased scrutiny must be paid to the specific cohorts of humans who are more likely to benefit from human-animal relationships.

Accordingly, Chandler (2012) noted how animals could play vital roles for people who have reason to find difficulty in other human relationships. She notes that children who have experienced non-optimal developmental experiences benefit from positive relationship formation and engagement, offering opportunities to feel validated and accepted without the anxieties from their earlier experiences. Sable (2012) also commented on the positive relationship between people and animals, but interestingly noted similar attributes of the relationship for countering deficiencies in other human-human relationships. Sable (2012) suggests one of the greatest advantages that animals

bring to human lives is assistance with shaping emotional regulation in the relation to other humans and dealing with stress and trauma.

Emotional Awareness Ability in Dogs

In asking 'Do dogs get the point?' Kaminski and Nitzschner's (2013) investigation developed understanding of how dogs might seemingly be skilled in comprehending certain elements of human communication. There has been a developing body of literature suggesting certain animals may be able to identify human emotions and their recent study distinguishes dogs' abilities to interpret communicative interactions above that of apes. Their results from a series of interaction tests that required dogs to interpret a person's pointing to a hidden course of food revealed that dogs did seem to interpret human cues and respond in line with the sender's message. Importantly, there was a clear distinction between the authentic communication and a deliberately false communication. When false cues were utilised, dogs were able to selectively ignore that interaction. Kaminski and Nitzschner's (2013) conclusion acknowledged the cognitive capacity of dogs to understand communications and looked to the domestication processes as the antecedents of how the species became, through a series of selective breeding, the attentive, cognitively capable animals they are today.

Noted in the paper cited above was the attention paid to eye contact. Dogs' abilities to interpret interactions are impacted by their attention to human faces and specifically to the eyes. Just as humans scan faces, dogs appear to demonstrate a natural gaze bias towards the left visual field – left gaze bias (LGB) - when viewing human faces (Guo, Meints, Hall, Hall, & Mills, 2009). Guo et al (2009) associated the LGB with social species and suggested the tendency was learned through socialization, as human infants displayed the LGB tendency less strongly than human adults. Although LGB was less prominent with inverted faces and non-distinguished from random gazing in object observation, both human adults and dogs demonstrated the LGB most strongly

with upright human faces, which Guo et al (2009) suggest is the result of greater attention to relevant faces for efficiency and accuracy of face processing. Bulter and Harvey (2006) and Guo et al (2009) state that such LGB is not simply automatic, but is actively engaged in the processing of relevant facial cues.

Passalacqua et al (2011) detail the importance of this gazing in the communication process between humans and dogs. Their research indicated that dogs' ability to communicate with humans by reading emotional states through facial cues develops with age and with the complexity of understanding before them. Guo et al (2009) previously explained that this communication is important for the transmission of need states and emotions making the LGB particularly interesting in light of previous research that explicated how the expression of emotion is most often judged through the right side of the owner's face (aligning with the LGB of the viewer). One such study by Burt and Perrett (1997) briefly showed participants a number of chimeric face images and asked participants to judge the emotions. They found that human viewers tended to base their decisions more frequently on the expression contained within the right side of the owner's face.

Guo et al (2009) suggest the tendency to read the right side of another's face aids early detection of emotional states owing to the discriminatory presence of LGB when looking at faces and not other objects. That dogs have this in common with humans, unlike any other animal including apes, suggested to Guo and his colleagues that dogs are equipped with the cognitive capacity to read human faces and interpret emotions, particularly anger, sadness and joy which are depicted most clearly through the facial configurations.

Denham et al (2003) link the ability to perceive emotions in others to wider developments in positive relationships. Denham and her colleagues suggest that emotional competence – the ability to perceive and interpret another person's emotions – is crucial in the formation of social relationships. It enables more suitable interactions to

occur and for positive affect to be built between the two individuals. These understandings position dogs as particularly well-equipped beings within a foster-care environment. Their perceptive ability to detect human emotions and their behavioural response patterns to align with affective responses to those emotional expressions (Bekoff, 2007) make them highly valuable relationships in the development of positive affect regulation.

As Haft and Slade (1989) detailed, emotional attunement is essential in the development of coherent emotional processing and management. Children with secure attachments learn this through sensitive interactions in their seminal years. Children who lack comfort in the expression of emotion to another human, however, may particularly find their companion animal a highly sensitive and engaging relationship partner with whom they are able to emotionally attune.

Knapp (2010) describes the intense emotional connection that can be felt between people and their dogs in a way that provides comfort and support as intensely as warm and intimate human-human connections can. Particularly for children within the fostering environment, emotionally perceptive animals present an opportunity to feel such a connection without the potential fear of developing this with another human. Fine (2010) suggested the simplicity and innocence of animal relationships makes relationship development feel very safe; the threat to the self appears not to be considered by the approach of a relationship with a non-human companion (Parish-Plass, 2008).

Animals as Figures of Attachment

Bowlby's attachment theory suggests that infants from many different species of animal have evolved a behavioural system that protects them from danger and facilitates safe exploration by regulating proximity to an attachment figure (Kwong & Bartholomew, 2010). "The fact that many species show attachment processes raises the possibility that

attachment bonds may develop not just within species but also across species" (Kwong & Bartholomew, 2010 p.422). Research has demonstrated the attachment of animals to humans, in keeping with the notion of requiring more capable others (c.f. Palmer & Custance, 2008), yet by contrast, studies investigating human attachment to animals have previously used the term loosely, often to describe emotional connections that perhaps do not qualify as attachment bonds per se (Kwong & Bartholomew, 2010). These authors evaluate previous findings and suggest that over emphasis has been placed on the findings of proximity maintenance (a tenet of other affectional bonds) and not safe haven characteristics (a tenet specific to attachment bonds).

For many attachment purists the idea of animals upholding positions as attachment figures is difficult to accept (Zilcha-Mano et al, 2011). However, as discussed in the attachment chapter Bretherton (1985) outlined that in its most technical sense, the term *attachment figure* refers to the use of the caregiver for the satisfaction of functions outlined by Hazan and Shaver (1994); secure base, safe haven and proximity maintenance. This has been important for the development of this branch of attachment theory as much criticism comes from a lack of clarity to distinguish human-animal attachments from other types of affectional bonds, the most often cited being care-giving bonds (Boag, 2010).

Kwong and Bartholomew (2010) considered whether care-giving roles were perhaps a pre-cursor to the development of human-animal attachment relationships using assistance dogs and humans as their sample. Their findings highlighted that although elements of care-giving bonds were present within their sample, there were clear indicators that dogs satisfied features of safe haven and secure base, adding to where they considered human-animal attachment literature to be lacking substantiation. Further, intense grief at the loss of the human-animal relationship suggested the presence of attachment bonds as separation and loss result in physiological dysregulation owing to bereaved individuals loss of an efficient means for maintaining

their sense of felt security - the availability of an attachment figure (Sbarra & Hazan, 2008 in Kwong & Bartholomew, 2010 p.432).

Utilising the four attachment features (Hazan & Shaver, 1994) as conceptual guidelines, Zilcha-Mano et al (2011) provided evidence that animals can fulfil attachment figure status by assessing the quality of human-animal relationship dyads. They scrutinised the relationships and discovered by employing attachment scales of anxiety and avoidance in their constructed measure - termed Pet Attachment Questionnaire (PAQ) - that pets may become figures of attachment for their owners; this is most prominent when the animal is of a social nature itself (Kurdek, 2008; Odendaal & Meintjes, 2003; Zasloff, 1996). Central to the felt security of an attachment relationship are the feelings that one is "unconditionally accepted and loved…" (Zilcha-Mano et al, 2011 p.2) and that care and support received is sensitive, available and consistent (Sable, 2012).

Indeed, it was Levinson (1978), who first stated the case for animals as attachment figures. His psychotherapeutic work brought him to the conclusion that 'a pet is a natural object of attachment, being readily available, active and mobile, and affectionate. Having a relationship with a living creature other than another person allows for the realisation and expression of a wide range of behaviours and interactions (Chandler, 2012; Karen, 1994; Sable, 2012).

Theoretical arguments have been forwarded in support of the idea that humans can develop attachments to buildings, places, or inanimate objects (e.g. Nedelisky & Steele, 2009), as well as to god or religious leaders (Bradshaw, Ellison & Marcum, 2010). In relation to animals, a growing body of literature exists in support of the notion that humans can also form strong attachments to animal companions. However, a significant problem with the literature in this area has been the lack of theoretical consistency in relation to the ideas, concepts, and definitions that underpin it (Beck & Madresh, 2008; Crawford, Worsham, & Swinehart, 2006).

As Zilcha-Mano et al (2011) state, those who object to animals being considered attachment figures do so on the premise that "an attachment figure is usually another human being who, unlike a pet, can provide advice and assistance and talk about worries and anxieties. In addition, an attachment figure is usually a stronger and wiser other and not a pet, which, like a child, needs its owner's attention and care if it's to survive" (p. 2). Despite this critique, it is the acceptance of Hazan and Shaver's (1994) keynotes for what constitutes an attachment figure that means pets may very well be considered capable of reaching attachment figure status. Indeed, Hirschman (1994) and McNicholas and Collis (1995) found the people in their research sample to describe their human-pet relationships as characterised by stability, consistency, tenderness, warmth, loyalty, authenticity, and a lack of judgement or competition (Zilcha-Mano et al, 2011 p. 2).

Further to this, much research has substantiated this belief that animals might achieve a position of an attachment figure. Odendaal and Meintjes (2003), Hall et al (2003), Geider (2004) and Kurdek (2008) have all indicated that pet owners feel close to their pets and seek and enjoy such closeness; in other words, they seek proximity with their pets. These researchers further conclude from their research interviews how the animals provided participants with support and affection, comfort and relief in times of need; readily satisfying the demands of what constitutes a safe haven. In addition, Cusack (1988) reported that animals helped his subjects with exploration confidence, and to pursue new activities; thus aligning with the criteria for a secure base (Hazan & Shaver, 1994).

Walsh (2009a) writes: *"Findings are clear that dogs have complex thinking and feelings and have acute sensory perception. Biological anthropologists have found that dogs demonstrate an uncanny ability – far better than our closer primate relatives – to read human cues and behaviour, accurately interpreting even subtle hand gestures and glances (Katz, 2003)… As social interactions are especially important to dogs, it is not surprising that they both elicit and respond to the feelings, intentions, and behaviour of*

their closest human companions. Although companion animals do not speak human language, they clearly understand and communicate with us in a myriad of ways" (p.468-469).

A significant benefit of employing attachment theory in the exploration of human-animal bonds is that it provides researchers with a *conceptual underpinning* (e.g., Beck & Madresh, 2008; Kurdek, 2008, 2009; Kwong & Bartholomew, 2011; Noonan, 2008; Woodward & Bauer, 2007; Zilcha-Mano, Mikulincer, & Shaver, 2011). For example, the theory offers a clear conceptual definition of what actually constitutes an *attachment relationship* for humans. As discussed earlier, attachment theorists (Hazan & Zeifman, 1994) forward a clear taxonomy that helps to distinguish true attachment relationships from other close bonds (that are not necessarily attachment bonds per se). Specifically, attachment figures should be (a) dependable sources of comfort (a secure base), (b) sought in times of genuine distress (a safe haven), (c) have their physical presence result in enjoyment and a sense of safety (proximity maintenance) and (d) have their physical absence illicit a sense of distress (separation distress) (Kurdek, 2008).

In relation to these criteria, researchers (e.g., Beck & Madresh, 2008; Kurdek, 2008. 2009) have sought to provide evidence that humans do appear to conceptualise animal relationships as attachment bonds (Sable, 2012). For example, Kurdek (2009) tapped into the extent to which dog keepers' *self-reported* feelings that their pet was a safe haven (e.g., "When I am feeling bad and need a boost, I turn to my dog to help me feel better"), secure base (e.g., "I can count on my dog to be there for me"), provoked a desire for proximity maintenance (e.g., "I like having my dog near me"), and separation distress (e.g., "I miss my dog when I am away from him or her") by utilising a self-report measure specifically developed for this purpose (Kurdek, 2008). His results suggested that pets certainly seemed to satisfy these attachment functions with mean values well above the midpoint of the subscales.

However, it has been suggested that the best candidates for an attachment bond are relationships in which *all* of the above functions (which leaves questions related to what we consider bonds that satisfy only *some* of the functions to be) are satisfied (Fraley & Shaver, 2000). The most salient attachment function reported to pet dogs in Kurdek's (2008) study was proximity seeking and the least salient was safe haven. Hence, it could be suggested that keepers are less likely to use their pet dogs as emotional safe houses in times of genuine distress (which may be a cornerstone of an attachment figure in attachment theory) than they are to simply enjoy being in close proximity to them (hence, perhaps dogs did not serve *all* of the functions needed to qualify as attachment figures, lacking true safe haven functioning). However, Kurdek (2008) also explored this possibility by comparing the extent to which owners felt that they turned to their dogs as a safe haven *when compared* to other key attachment figures such as mothers, fathers, siblings, best friends, romantic partners, and children. Results suggested that dogs were turned to more significantly than all figures apart from romantic partners and that this was moderated by both person (e.g., being male or widowed) and animal (e.g., extent to which animals satisfied their keeper's relatedness needs) characteristics. Kurdek (2008) concluded that his data are evidence that humans can form attachment bonds with animals in a manner that is consistent with the literature on attachment theory.

Kurdek's (2008) data suggest that animals seem to satisfy the functions of an attachment figure but that the extent to which they do is likely to be dependent upon person and animal characteristics. Kwong and Bartholomew's (2011) more recent data supported this assumption and explored assistance dogs as attachment figures in a sample of individuals with various disabilities. The study employed thematic methods to analyze semi-structured interviews with participants about their relationships with assistance dogs. Findings suggested that the animals were strong *sources of comfort* during distressing times and they reported behaviour that parallels what Hazan and

Zeifman (1994) describe as safe-haven components, even suggesting that "…in many cases, the dogs appeared to be so attuned with their owners' emotions that the owners did not need to seek out the support" (p.426). Data also showed that for just over half of the participants, the assistance dog also fulfilled the role of a *secure base*. Participants "…described how the security and stability provided by their assistance dog provided a foundation for confidence and exploration" (p.427). Overall, the research demonstrated that animals seem to be able to satisfactorily fulfil attachment figure functions. However, the researchers make reference to the fact that this may be particularly apparent in their investigation because their sample possessed specific characteristics (e.g., a disability requiring animal-related assistance) that increased the likelihood that the human-animal bond might develop into something that reflects an attachment bond (Carr & Rockett, 2013).

Literature has warned clinicians about the presence of human-animal attachments. Brown and Katcher (2001) replicated an important study from earlier in their research careers (1997) to identify the relationship between pet attachment and dissociation in humans. Once more, the findings demonstrated a strong correlation between the higher levels of dissociation and increased attachment to animals questioning whether certain relationship climates increased the likelihood of attachment relationships forming. Chur-Hansen et al's (2009) investigation revealed results that suggested in some cases, attachment to animals may be extreme and the positives of animal attachments, for people with otherwise compromised attachment, may be outweighed by the problems arising from this *extreme* level of attachment. Through their research, the authors found high levels of attachment to animals, but their concerns arose from people preferring the company of their animal over other humans, opting to remain at home rather than engaging in social circles, and finding it hard to consider life without the pet (p. 290).

Chur-Hansen et al (2009) wrote: "It could be argued, then, that while attachment to a companion animal may have positive health benefits, it is plausible that an extreme attachment may result in less desirable health outcomes". For example, in relation to mental health, an individual may become isolated from other social supports because of their relationship with their pet. Beck and Katcher (2003) put forward the idea that for some people, a psychopathology may exist that impairs a person's ability to interact with other humans, hence animals being the preferred attachment figures. However, understanding which comes first, attachment to pets or having a smaller network of human social supports, is yet unclear (Cohen 2002).

The Capacity of Animal Attachment Figures

Of the research into human-animal attachment, findings suggest that our need for attachment relationships is so fundamental that it can be satisfied through relationships with other species (Kwong & Bartholomew, 2010). Both Archer (1997) and Morey (2010) speculate that dogs are most suitable for fulfilling this role owing to their selective breeding and propensity to treat humans with affection. Indeed, through research with dogs it has been speculated that people form attachments with animals such as dogs to compensate for insecure human attachments (Archer, 1997). However, more current research suggests human-animal attachments may also be established without there being a lack of security of human-human relationships (Kwong & Bartholomew, 2010).

It is perhaps important to consider human-animal attachment relationships within the hierarchical structure of attachment relationships (Sable, 2012). A dog's placement within a person's hierarchy may depend on which features of the attachment bond the dog most extensively fulfils and the other intricacies of the relationship. Panksepp (1998) suggested dogs are highly probable attachment figures for the very nature by which they offer protection to humans; they create an assumption of safety and

care which is largely the essence of human-canine co-evolution (Panksepp, 1998). Allen et al (1991) explain that dogs might be capable of providing comfort, support and felt security, but perhaps are less capable when more active support is required.

It is acknowledged that while a secure individual with adequate human relationships might not require or have the need to form attachment relationships with animals, individuals with compromised attachments, or those who have relational deficiencies, might be more susceptible to establishing close bonds with non-human others (Parish-Plass, 2008). Research then must consider the potential bridging of relationship maintenance back to human-human terrain (Chandler, 2012; Levinson, 1978; Sable, 2012).

How Animals may Facilitate Human-Human Relationships

Levinson (1978) first documented the effect of his dog on the therapeutic environment, claiming that the presence of his dog enabled a stronger connection to his counselees, by lowering levels of intimidation and making the therapist appear more friendly and approachable (Fine, 2011). This was not the first use of animals in therapeutic settings; it was, however, the dawn of modern thinking about the human-animal relationship.

Recent literature has focused on the benefits from the human-animal connection and consequently, interventions have arisen with aspirations to understand and utilise such findings. A confusing set of operational nomenclature arose that attempted to define the distinct differences between interventions and therapy and as such, many practitioners, societies and researchers have attempted to provide their own clarity to the terms. For this research investigation, the pursuit of Animal Assisted Intervention (AAI) is discussed according to the understanding of Kruger and Serpell (2006) that: AAI is any intervention that intentionally includes or incorporates animals as part of a therapeutic or ameliorative process or milieu (p.25). They express an element of intentionality; that

there is a directed and conscious effort to utilise a specific animal for a set purpose given its set characteristics (Chandler, 2012; Fine, 2011; Kruger & Serpell, 2006).

With this in consideration, the literature review now considers another role of animals within the formation of human attachment relationships: one of facilitative function. Modern domesticated animals require care from their human counterparts in order to survive. Animals, particularly those of a social nature, also instigate and derive interactions that bring them into the family structure as active members (Chandler, 2012), often achieving status as substitute children or partners (Fine, 2010). What this affords a child in foster care is the opportunity to observe adults in a caring capacity from a non-threatening position; there is no direct impact to the child resulting from the quality of care provided by the adult (Levinson, 1969; Parish-Plass, 2008). When adults are consistent and affectionate toward the animal, this offers situations through which the child may observe the adults' care, sensitivity and responsiveness to the animal's needs. A child with insecure working models has a generalised perception that adults are uncaring, unsupportive or neglectful, but in this situation gets to observe remarkably differently behaviours that are incongruous with their current working-model.

Animals within a family structure may also soften the environment and cause the foster carers to appear more approachable, trustworthy and friendly (Serpell, 1998). Much as animals improve the therapeutic setting for counselees in therapy (Levinson, 1969), an animal may lubricate the social relationships that exist between the child and the foster carers. Research has demonstrated that animal presence is influential in the perception of others (Ascione, 1992; Sable, 1995) and practitioners of therapeutic interventions that include animals have noted the positive implications on the vicarious human-human relationship, reporting stronger rapport between adult and child, and deeper emotional exploration in therapeutic contexts (e.g. Parish-Plass, 2008).

The presence of animals within a family could also lead to the development of other affectional bonds (Sable, 2012). Daily interactions offer numerous circumstances

in which the child and foster carer are able to work together in the care of an animal, and equally important, they are able to play and talk together, with the animal being the facilitator for the play-relationship. These ideas of *co-operation* and *family membership* are critical features in the process by which Schofield & Beek (2009) suggest a secure-base is formed. With the co-operation that is required in the care of an animal and the portrayal of *acceptance* as a *family member* communicate messages that promote security and trust in the family structure. The authors point out the critical importance of secure-base modelling within foster care environments and the impact that construction of such a climate can have upon the fostered individual's felt security and relationship development (Schofield & Beek, 2009).

Talking to animals is another suggested way that animal presence might facilitate human relationships. Noonan (2008) explains: "Sometimes this is a safe way to try out unsafe thoughts and feelings privately, but often these conversations are meant to be overheard, when it is too difficult to say the things directly to another. This may give the other a chance to think, to change and thus avoid confrontation or disappointment." Kruger, Trachtenberg and Serpell (2004) also suggested this was an important component of animal assisted interventions in that children get the opportunity to partake in conversations, sometimes about sensitive issues, but at a safer psychological distance: issues discussed are distanced from the self (Parish-Plass, 2008).

Cognisance of Animal Welfare

In considering the benefits to humans of human-animal relationships it is imperative that consideration also be given to the welfare of any animal involved; that the animal is not used and forgotten as a being in itself. Indeed Appleby and Pluijmakers' (2004) pet-behaviour research demonstrated the intense attachment of animals to humans and Prato-Previde et al (2003) suggested dog behaviours are also classifiable using Ainsworth et al's (1978) Strange Situation Procedure. Therefore the psychological

health of the animal must be considered when used as part of human-rehabilitative processes.

Additionally, essential consideration must be given to the very real potential that some children within the sample who have found themselves in foster care as the result of abuse or neglect, may exhibit some degree of cruelty towards the animals in their homes (Ascione, 2005). Although this is notably a method of expressing repressed anger from negative past-experiences (Chandler, 2012), children who have harmful behavioural manifestations could potentially harm an animal that is less powerful than the child (Katcher & Wilkins, 1998). Foster carers ought to be mindful of children's behaviour toward the animal, particularly if the child has difficulties managing anger or other distress (Ascione, 2001).

Ascione (2005) details in his review of animal cruelty, that of great importance for understanding animal abuse by humans is to understand the motivation behind the behaviour. He explicates from a wealth of examples that control is a common and central facet of animal abuse motivations. Feelings of power and of being influential within one's environment often leads victims of abuse to explore such behaviours over other live beings that have little ability to prevent it happening, or indeed report its existence. Indeed it has been offered as explanation that delivering cruelty to animals enables a child to witness how they are feeling; to see the suffering they can inflict on another as a cathartic exercise for their own internal anguish (Ascione, 2005).

Parish-Plass (in press) elucidates this point, explaining how children strongly identify with animals, relating to their characters and treatment by others. However, Parish-Plass makes suggestions for how this can be useful in the 'therapeutic alliance' between an individual and the therapist. Children who have been abused by adults have every right to be fearful and mistrusting of other adults, but through their affiliation and identification with animals they come to judge other adults by how they interact with animals. Through such interactions, the child who is likely to abuse an animal may learn

new models of interaction that help lessen their intense feelings of turmoil and through a human-animal alliance, progress can be made that helps an individual deal with past trauma (Parish-Plass, in press). Nonetheless, for the sake of animal safety, it must be monitored how a child operates when with an animal, particularly if the child is likely to present control exploration behaviours (Ascione, 2005).

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Specifics of this research:

Motivation for this Investigation

Smolkovic's (2012) research suggested that attachment to an animal was certainly possible, but suggested there were characteristics that might increase a person's likelihood of experiencing attachment components within a human-animal relationship. Indeed, Smolkovic called for a longitudinal investigation with more specific populations to ascertain whether there were changes over time within the human-animal attachment bond and this research sought to respond to that call for development, making considerable efforts to understand the lived experiences of children in foster care from the perspective of the children themselves (Unrau, 2007).

It is necessary to first state the reasons for considering attachment relationships in this setting. The research that underpins this investigation views the current foster system as potentially challenging for some children with attachment difficulties. Many children with an insecure attachment have learned patterns of relating that perceive others as untrustworthy (Schofield & Beek, 2010). Currently there are 83 000 children looked after in the UK, of which 62 000 are living in foster care. These children can move through a staggering number of foster placements: three times in their first 12 months within the system, whilst almost a quarter of those children will move placement five times or more. Expecting a child with insecure attachment to form new relationships is challenging enough, but to ask this of the child three times, or more, in one year is considered parlous and deleterious to their mental health. Although placing children with caring humans is the best available situation (Beck & Madresh, 2008), adhering to attempts of the 'consistent caregiver approach' (Schofield & Beek, 2006, 2009), this investigation, like so many others, considers such frequent placement breakdowns harmful (Rostill-Brookes, Larkin, Toms & Churchman, 2011; Smith et al, 2001). Repeated breakdowns may confirm the expectations of insecure attachment representations, strengthening one's insecurities of the self and of others. Research has

indicated how this leads to feelings of being both unloved and un-loveable, and has been evidenced to dramatically harm children's sense of self-worth and self-esteem (Newton et al, 2006; Smith et al, 2001; Unrau, 2006). In an investigative attempt to ease the identified difficulties for insecurely attached children living in foster care, this research explores the effect of children living with social animals, investigating the possibility that doing so might enhance relational capabilities (Emmens, 2007) and perceptions of others through establishing a level of intimate consistency.

The research project for which this thesis has been written investigates the implications of the aforementioned relationships between humans and animals. It seeks to understand the utility, the substance and the nature of both human-human and human-animal relationships through the lens of attachment theory (Bowlby, 1963, 1972, 1980), specifically in the context of long-term foster care. It seeks to understand the interplay between humans and animals at a time where relationship attainment and maintenance are more challenging (Schofield & Beek, 2007) and where there is greater need for reworking felt security and satisfaction in the pursuit of positive mental health.

Children in long-term foster care are more likely to have developed attachment insecurities owing to working models established through non-optimal experiences of care (Schofield & Beek, 2009, 2010). Beyond immediate relationships, there is great need to be attentive to compromised attachment representations, for they have been heavily linked to emotional climates of depression and reduced self-worth, stress and chronic anxiety (Bartholomew, 1990; Safford, Alloy, Crossfield, Morocco & Wang, 2004; Carnelley, Pietromonaco & Jaffe, 1994; Collins & Read, 1990; Feeney & Noller, 1990; Mikulincer, Doron & Shaver, 2010; Kobak & Sceery, 1988; Mikulincer & Nachshon, 1991; Mikulincer & Shaver, 2005), self-harm and eating disorders (Friedberg & Lyddon, 1996) and other psychopathologies. Social, professional and parenting relationship roles have also been evidenced as affected by compromised attachment

relationships (van IJzendoorn, 1995). There are vast individual and social motivations for reducing attachment insecurities.

Animals may provide a non-threatening relationship alternative that offers an intimate physical and emotional connection that is not biased by the internalised working models (Carr & Rockett, 2013; Parish-Plass, 2008; Sable, 1995, 2012). Therefore, animals may offer children in foster care a more accessible, and as a result, a more consistent relationship that offers opportunity for revision of their perception of others and developing value of the self (Smolkovic, 2012). It is also suggested that the presence of such an animal as part of a family structure may facilitate the development of more-secure attachment perceptions of other humans (c.f. Carr & Rockett, 2013) where animals fulfil a facilitative function (Parish-Plass, in press). Brown and Katcher (2001) suggested: "Relationships with companion animals could serve as a safe substitute for relationships with people or as a bridge to begin relating to others. Furthermore, having an attachment to a companion animal could allow an individual to feel more secure and learn to trust. Learning to trust is one of the most important building blocks of human relationships" (pp.35-36). This research offers substance to this theoretical suggestion.

Beyond assisting both the child and foster carers in the immediate situation, an intervention such as animal cohabitation has the potential to reach much further than the immediate attachment relationships. If security and consistency may be established in their care-giving relationships then the child will be better afforded opportunities to engage in more positive personal and social interactions. Thus, as suggested through the existing attachment literature, a supportive intervention that establishes more secure attachment representations may impact upon more than the immediate attachment relationship – it extends new expectations, much as the individual's working model does, to other types of relationships. Bowlby (1980) described this revision of working models in light of new experiences as *accommodation,* to describe the nature of revised

working models when previously internalised representations are so incongruous with new conditions that they are rendered redundant.

In agreement with Beck and Madresh's (2008) conclusions, this thesis does not intend to "challenge the assumption that human relationships are, or should be, the primary source of social support" (p.53). Instead its intention is to provoke sensible consideration of how such important features of human-human relationships might be supported and improved. After all, "from a new viewpoint, a familiar landscape can look very different" (Bowlby, 1969/1982 p.1).

Bowlby (1969/1982, 1988) developed attachment theory partly as a way to understand how individuals come to be at risk for mental health disorders and to offer an understanding of relational experiences that might better inform treatments or interventions to aid individuals suffering as a result of their early experiences. However, as Cobb and Davila (2009) highlighted, the pace at which this and other such theories have been adopted by clinicians and policy makers has been relatively slow. With the ever-expanding literature on attachment patterns, styles and interventions, it seems a pertinent time to consider how extensions to attachment theory can contribute toward improving CIC practice.

Many children living in foster care do so because of childhood neglect and this is known to have severe, pervasive, negative outcomes that often continue into adulthood (Schofield and Beek, 2010). As a potential source of comfort…companion animals can both give and receive affection and therefore may be sources of healthy attachment for people who were raised in negative situations" (Barlow, Hutchinson, Newton, Grover and Ward, 2012 p.111). It is without contention that children regularly moved through foster placements suffer as a result of relationship breakdowns and familial instability (Smith et al, 2001). The ramifications for individuals' representations of themselves and others can be dramatic and now many questions are asked as to how we might improve this important system for the benefit of those people who come to

need care. This research has but partial answers, yet it does hope to go some way to instigate further research by others.

Research Questions

In light of all the literature from attachment theory, foster care and anthrozoology discussed above this research brings together the pertinent issues from all three. It seeks to explore human-animal relationships from an attachment perspective within a specific population identified as at-risk from attachment insecurities. The literature has demonstrated the theoretical possibility that animals might be able to become figures of attachment: indeed, this has been demonstrated by numerous research investigations. However, this investigation considers the possibility that animals might become figures of attachment for children living in long-term foster placements.

The review of the literature has also engaged research that suggests animals may facilitate and enhance human relationships as well as increase social and emotional function, increase constructs of mental health and lead to increased perceptions of the self and others. This critical influence of animals as influencers of human perception is interesting within a population of insecurely attached children who, by the conceptualisations of attachment theory, perceive human relationships to be anxiety provoking. This research seeks to unite these aspects of the literature and explore whether animal presence within long-term foster-care placements can enhance children's attachment orientations.

Accordingly, this research arrives at its questions: First, it asks a question aimed at advancing attachment theory within a specific context, which is: (a) To what extent can an animal be a figure of attachment for children in long-term foster care? Second, it explores a question aimed at understanding, from an anthrozoological standpoint, how human-animal interactions might be understood within relationship development by

asking: (b) How might an animal's presence facilitate the relationships between a child and carer in foster care?

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Methodology

Introduction

The intention of this research was to understand the experiences pertaining to and relationship developments of children in long-term foster care and specifically shed light on their relationships with the carers and animals with which they shared a home. The research explored whether there were attachment-based components within the human-animal relationship, contributing to recent extensions of attachment theory (e.g. Kwong & Bartholomew, 2011; Zilcha-Mano et al, 2012). This interest in the human animal bond was two-fold and gave rise to two research questions:

(1) To what extent can an animal be a figure of attachment for children in long-term foster care? And

(2) How might an animal's presence facilitate the relationships between a child and carer in foster care?

Underpinning the research investigation was attachment theory, a grand theory of relationships that demarcates a framework for understanding close emotional bonds (R. Bowlby, 2004), which in turn helped inform the research methodology and specific methods employed. Those methods sought to observe and elucidate the subjects' experiences guided by the theory's framework and assertions, mindful of the need to convey the authentic and deep emotional relationship characteristics expressed in times of need or distress – the very features that characterise attachment relationships.

In light of this, the research tools sought to assess attachment relationships over time and explicate changes, if any, in the children's attachment representations (Unrau, 2008). Critical to these expressions of attachment behaviours was the focus on the children's voices; participants were instrumental in conveying their thoughts, feelings

and relationship interpretations through *engagement* with the research tools (Cupchik, 2001).

Philosophical Inquiry:

McGhee (2001) indicated that consideration of a researcher's philosophical position is important for understanding the boundaries and parameters of their inquiry. There has been a "considerable evolution of ideas about how to 'do' science and some earlier frameworks have been supplanted by more recent models of how to undertake empirical investigation" (McGhee, 2001 p.23). The essence of philosophical inquiry ultimately, is concerned with questions of how we should conduct research in light of our understandings about the nature of knowledge.

Before we may consider what the limits of our knowledge may be, and within that what we can know, as researchers we must first arrive at a decision of what actually exists - our ontological positioning - before we may entertain discussion about the limits of what we can know about that, which exists. However, clearly defining one's ontological standpoint has itself been the subject of great debate across the evolution of psychological research endeavour. Schools of thought within psychology have historically maintained different ideas about what actually exists (McGhee, 2001) and therefore spark debate, and create disparity, between approaches to research. Lincoln and Guba (2000) detailed that ontological foundations of incommensurable ilk are generally found in (because they lead to) radically different disciplines and forms of inquiry. In this manner, research practices remain aligned with structures of inquiry that offer guiding principles in the generation and testing of new knowledge.

Yet embodied within differing ontologies are boundaries that both provide and govern paradigmatic identity (Rayner, 2009). By their nature, these adjoining boundaries hint at a unity, at an intermediary position where *what is known* and *how that knowledge is measured* meet (somewhere) along the same continuum. The centre point of which,

highlights the convergent similarities that are frequently ignored through the intense focus on one approach to conceptualising what constitutes reality and thus how it might be measured (Rayner, 2009). Indeed, in the rejection of a differing understanding of reality, one is cognisant of at least the potential for alternative inquiry and thus the absolute nature of truth is theoretically challenging at best (Cupchik, 2001).

Research inquiries may find support and direction within the boundaries and limitations of their ontological assertions (McGhee, 2001). Of course, this precludes the notion that for most research, and with good reason, practicalities also determine a great extent of what can be measured and how that might be actuated. Kuhn (1962) suggested there is a limit to what can be known in the context of what is real and how this neatly guides the researcher toward a set of research tools that help observe, measure, understand, or describe a phenomena of interest upon which they direct their focus. Kuhn's emphasis stressed how these known 'knowns' are neatly shrouded in accordance with best thinking at the time, and as knowledge develops, new assertions about what actually exists are formed. While this may reform research questions, many prevail in accordance with established procedures of inquisition (McGhee, 2001).

In broad terms, assertions that researchers are separate from 'the observed' conflict assertions that acknowledge the researcher's role in both shaping and understanding the reality (Lincoln & Guba, 2000) yet these differences, although historically established, need not be deemed wholly irreconcilable (Cupchik, 2001). Central to the differences are the beliefs surrounding the state of reality. *Positivists* maintain that phenomena exist independently of their interest and measurement; while *constructivists* believe their interaction with and their interpretation of events represents local and specific constructed realities where social phenomena are products of "meaning making activities of groups or individuals" (Lincoln & Guba, 200 p.167).

There are research questions that better suit investigative methodologies from philosophical research extremes, but there are cases where debate may arise in deciding

the most suitable approach. McGhee (2001) outlines how much research is shackled by philosophical assumptions that deliver researchers at methodologies that do not allow for the most illuminating methods to be employed and urges notions of pluralism to better access methods for knowledge development. Highlighting the relative pitfalls in philosophical assumptions, Beach (1990) critiques constructivists by stating that: "while communities might construct interpretations of events that reflect relative values and interests, the underlying phenomena do not actually rely on them for existence" (p.217). As the case may be, positivists must not forget the essence of Heisenberg's principle, which posited that phenomena are transformed in the act of measurement and therefore, the positivist researcher is never really independent of the phenomenon under investigation (Cupchik, 2001).

On this battlefield for defining reality and how we are able to measure phenomena of interest, scholars have found comfort in the acceptance of one paradigm over another, swelling archives with ontological reasoning in due course and operating within relative isolation, missing the quite beautiful advantages of another paradigm in the quest for paradigmatic superiority. This "ghostly ballet of bloodless categories" as Bradley (2004) alluded, perhaps hinders absolute understanding by losing depth of investigation to this idea of researcher-in-paradigm-boundary comfort (McGhee, 2001).

Perhaps a more complete picture might be provided through a leaning to a middle ground (Cupchik, 2001) where reconciliation between ontological disparities seeks to remove the assumptions and boundaries that separate research inquiries and instead take heed of the pivotally significant points that unify them (Rayner, 2009). This is not to advocate attempts to employ every methodology within every investigation, nor a unanimous shift to the middle for all research investigations, rather it suggests an increased awareness of the strengths to be gained from consideration of sometimes-blended methodologies, where and when applicable or advantageous. Certain research sites or topics of investigation will necessarily dictate and govern the researcher's arrival

with applicable methodological inquiry that situates at the extremes of the philosophical continuum, whereas other inquiry might be less guyed and thus researchers have opportunity to employ aspects of more than one approach, equally justified as 'a good fit' (Draper, 2004).

As Cupchik (2001) explains about the extreme ontological perspectives and how they bear the burdens of their doctrinal commitments: "In the case of positivism, precise operational definitions *can* so deplete a phenomenon of its richness and texture that it all but disappears in the rush to actuarial prediction. On the other hand, constructionists *can* so link a phenomenon with a particular interpretive context that it runs the risk of being isolated within collective solipsism. The two communities therefore have different albatrosses dangling from their epistemological necks. In the case of positivism, measurement can transform meaning into nothingness. For constructivists, the priestly use of impenetrable language can generate meaning, but only for the initiated" (p.3).

With this pertinence of research inquiry necessarily suiting the phenomena under investigation this research seemed to be best situated (following considerable thought about assessment methods of children's internal relationship perceptions) within a constructivist-realist approach in light of the assumptions of the theoretical underpinning of attachment theory (Van Vuuren, 2007), how it views the construction of reality, and the methods of investigation towards which, constructivist-realism steers the researcher. This philosophical approach enabled the research to consider the possibilities of multiple perceptions and internalisations about a fixed environment. It offered a comprehensive set of guidelines that structured the investigative process and enabled greater breadth in considering the individualised and generic perceptions of children within such an environment.

Constructivist-realist ontology accommodates elements of positivism and constructivism and the methods they subtend. "The first step is to acknowledge a social world (or worlds) that is reflected in the natural attitude of daily life and exists prior to

and independent of either positivist or constructivist analysis; hence realism. Phenomena are understood as processes that cut across the physical, social, and personal (self) worlds. Qualitative and quantitative researchers examine these phenomena, offering rich descriptive accounts or precise analyses of functional relations, respectively" (Cupchik, 2001 p.1). In order to develop research-based understanding, both approaches need to produce 'data' and are therefore subject to potential bias. Qualitative descriptions have traditionally been considered as preceding hypothesis testing, yet constructivist-realism considers the two approaches to be complementary and in parallel. Qualitative methods can offer rich accounts that outline underlying processes, which then help frame hypotheses that test specific relationships, whilst, in the other direction, empirical findings related to relational processes can indicate areas that could benefit from qualitative examination.

The research has been conducted with the understanding that the individuals who participate it construct social reality, but with mindfulness about the individual's unique interpretation and internalisation of social phenomena, and this view is consistent with constructivist-realist movements in social psychology – one that posits that individuals gradually build their own, subtly different and yet commensurable understandings of the world through experience and maturation. This stance is reflected through the use of attachment theory as the lens by which participants' relationships and experiences are scrutinised. Each aspect of this research adheres to the philosophical concept of constructivist-realism for it is held that a fundamental characteristic of human experience and development is rooted in both the inter-subjective space between people in addition to the internal constructions unique to the individual; both of which are inherent and perceivably inseparable from human experience (idea expressed in Van Vuuren, 2007).

McGhee (2001) concluded by detailing the stages through which researchers ought to arrive at their methods of data collection, regardless of one's philosophical

journey. Defining, at least to themselves, what actually exists, and then exploring the possibilities of how such understandings can be measured and the potential limits to that knowledge, deliver the researcher neatly at the point of employing the most suitable research tools – data collection methods – to answer or test their research questions or hypotheses, respectively. Ultimately, the purpose of defining one's position is to ensure the 'best fit' (Draper, 2004) between the topic of investigation and the most illuminating methods of inquiry. Accordingly, this research employed methods that helped depict fixed events and the individual interpretations of those events.

Data Collection and Design:

Data was collected in accordance with the aforementioned constructivist-realist consideration. Accordingly, the research tools employed were carefully selected for their aptitude at producing data that would enable these assumptions to be conveyed in great depth and necessary complexity. Ultimately, the research methods were selected for their appropriateness to generate data that would most suitably answer the research questions (Draper, 2004). Heavy focus has been placed on the study of individual cases to produce rich and detailed accounts of what has been observed. To achieve this, study procedures were selected to withdraw individual constructions of reality by providing a deep level of emotional relativity, suitable for the participants, by age and cognition, and the researcher to perform higher levels of reflexivity throughout the process. Inductive processes were employed to analyse the data, identifying key themes and patterns common to the participants' narratives in accordance with the theoretical underpinnings of attachment theory (Kwong & Bartholomew, 2011).

In order to uncover the developing elements of the participants' relationships, the design of the data collection was longitudinal so as to provide an increased number of reference points. Snapshot and short-term research investigations may be useful for understanding circumstances on a particular occasion, yet these lack the coherence that

may be established through long-term inquiry. Deriving perceptions of the relationships under scrutiny over the course of the six months led to a research design that delivered patterns of change by repeated engagement with the research tools. Through this more detailed depiction of change, it enabled the visualisation of developing trajectories.

By employing that design it enabled naturalistic generalisation, which scholars have referred to as the *transferability* of themes or patterns. This ability is most easily achieved through qualitative measures for they enable a greater depth of inquiry and of expression of results, owing to the inductive nature of the research design. As Lincoln and Guba (1985) put it: "if you want people to understand better than they otherwise might, provide them information in the form in which they usually experience it" (p.120).

Participants

This longitudinal research investigation embarked with ten children (3 boys, 7 girls) who were living in long-term foster care (LTFC) and under the legal care of the Private Foster Agency 'Advanced Foster Care' (AFC): the fostering department of 'Advanced Childcare'. Participants' chronological ages ranged from 10-16years, although developmental ages ranged from 9-12 years (as determined by AFC psychological assessment). All participants were literate and able to communicate verbally. Participants were all living in homes where animals were present; at least one dog and several homes had other animals, including multiple dogs, cats, parrots, hamsters, rabbits and fish. Two children withdrew from the research, their reasons undisclosed, leaving eight children (3 boys, 5 girls). All participants were of Caucasian descent, with English as their sole language. All participants were educated in mainstream schools and most (7 of 8) attended contact meetings with parents at the start of the investigation. All foster carers were of Caucasian descent, spoke English as their first or only language and were of self-identified working class. Three children moved schools during the

research (but their living placement remained the same) and three children had contact ceased with parents due to parental inconsistency at meetings. Otherwise, all other participants living, schooling and contact arrangements remained consistent throughout the seven-month longitudinal investigation.

Case Study Approach

In conjunction with AFC's clinical and fostering directors, ten children were identified as suitable participants for the research. These ten children subsequently formed the structure of the investigation through ten individual case studies. Each child was approached by their regular social worker who, with the foster carer(s) present, explained the intention and demands of the research investigation. Participants were later introduced to the researcher who conducted the first revised-AAQ assessment and had an informal familiarisation interview about the people and animals with which the child shared their house. Following the interview, the researcher explained the requirements of the diaries to each child and left them with that diary and the necessary information to seek assistance if required. Bi-weekly contact was made with each foster carer to ensure children were progressing the diaries and able to complete the monthly revised-AAQ assessments. At each contact, foster carers were asked to remind the children that participation was voluntary. Two children withdrew for undisclosed reasons after two months.

Following six-months of diary maintenance, children completed one final revised-AAQ report. Finally, the researcher visited each child to conduct an informal interview supported by the data from the revised-AAQ assessments (profiling change over time) and the recorded notes in the diaries. Following the concluding interviews, the foster carers were interviewed about the children's observable relationships with people and pets.

Case Study Methodology

The chosen methodology unfolds with coherence following the establishment of one's epistemological position (McGhee, 2001). The specific approach necessarily sets about answering the research questions in accordance with the researcher's accepted approach for how best to derive new knowledge about a topic. One such approach that aligns with constructivist-realist inquiry is the case study.

I begin this section as Rowley (2002) began her paper regarding case-study research by explaining that the goal, but also the biggest challenge of the case study method, is to lift the investigation from a descriptive account of 'what happens' to a piece of research that lays claim to being valuable. It is widely accepted that case-study research is useful in the study of human affairs for they are down-to-earth and attention holding (Stake, 2008). While this 'need to accentuate their value' may be the challenge of the case study, the overwhelming strength of this method is the utilisation of multiple research tools to ascertain a rich, wholesome, intricate understanding of the phenomena under investigation (Eisenhardt, 1989; Stake, 2008; Yin, 1994). Indeed, case studies offer a depiction of research that is likely to be epistemologically in harmony with the reader's experience and thus to that person, a natural basis for interpretation and naturalistic generalisation (Stake, 2008). Note it is the reader who makes the naturalistic generalisation – also termed transferability - based on his or her own interpretation. Given this research investigation focuses on thus far un-researched events, or at least events not researched through this theoretical lens within this environment, there is significant value in the choice of and support for the use of this methodology as case studies are "particularly well-suited to new research areas" (Eisenharadt, 1989 p.548).

Further, case-study investigations are of significant utility for seminal examinations, particularly when a "how or why question is being asked about a contemporary set of events over which the investigator has little or no control" (Yin, 1994 p.9). This approach enables the investigation of phenomena within their real-life

context (Yin, 1994). Given the exploratory nature of this investigation, the inductive and detailed approach of a case study might be considered the most appropriate; for it seeks to contribute new theoretical conceptualisations in light of the current paucity of consideration within this area of attachment theory. A case study also offers scope for the 'unknowns' (Cassell & Symon, 2004; Stake, 1995) of inductive inquiry to emerge. Given the intricate and complex nature of the diverse relationships in existence within these studies, I have considered this approach to be most appropriate for deeper and more detailed investigation (Rowley, 2002).

There is often criticism from more rigid, scientific investigation about the sample sizes and thus ability to generalise from case study research. Yet it is the case study's ability to gather such deep and diverse data that supports its use within research, for its wealth of detail can often richly inform policy and practice (Yin, 2003). The generalisability ought not be of critical importance for such seminal investigation, but transferability and the notion of further thought development leading to more extensive future research. Importantly, Stake (2008) suggests the aim of research should be beyond the swelling of archives, but to help people towards further understandings. So while case studies are criticised for their inability to produce objectively generalisable results, Robert Stake advises that we be cognisant that in order to facilitate a development of understanding we must perceive and communicate in a way that accommodates present understandings (Schon, 1977).

Thus case study research 'acquaints man with himself' (Dilthey, 1910) so that he might approximate himself through the words and illustrative examples documented through the case study. While seemingly incongruous with an ardent positivist, this notion of vicarious generalisation seems logical as a means of unifying and understanding human experience, expression and understanding (Stake, 2008).

Dilthey's work, although widely regarded as anti-positivist, was not simply urging a more constructivist approach. He was merely advocating that researchers

studying human affairs ought to capitalise on "the natural powers of people to experience and understand" (Stake, 2008, p.5). With that in mind, it becomes much easier to consider case study research having a wider application beyond the immediate participants being studied. Dilthey (1910) suggested that humans are capable of understanding vicarious experiences and learning from them so they may inform their own knowledge development. This internal development of knowledge is what he referred to as naturalistic generalisation. Such generalisation relies on intuition and sending covariations of events both in and out of context (Stake, 2008); "as readers recognise essential similarities to cases of interest to them, they establish the basis for naturalistic generalisation" (p.7)

While by uncontested acceptance, case studies are disadvantaged for propositional knowledge and law inquisition, they are of utmost value for understanding, extending experience and increasing the conviction of what is known (Stake, 2008 p. 6). Positivist approaches may apply *further criticism* toward case study methodology for the ease by which researchers may become lost or drowned in the abundance of data being gathered and thus lose their critical eye and miss the intended subject of study (Diefenbach, 2009). And indeed this is a challenge for case-study researchers. The utilisation of such diverse approaches, while a critical feature of the case study approach (Eisenhardt, 1989), requires considerable systematic studying of each case's data to identify and understand the emerging themes. A case-study is not a panoramic net, cast over a subject to ensure catching something of interest through fear of missing the intended phenomena; the combination of numerous methods is due to this being an effective way to approach the intricacies of complex phenomena, and to deliberately triangulate data and theory to ultimately improve the validity of findings (Cassell & Symon, 2004). To help inform the 'execution of an effective and productive case study' (Rowley, 2002), this research is cognisant of the outlines presented by Hamel (1993): (1) Gaining and maintaining access; (2) Choosing an initial theoretical framework; (3)

Collecting systematic data; (4) Managing data collection; (5) Analysing the data; (6) Leaving the case study.

I was critical to 'leave the case study' as Hamel (1993) suggested, having fully debriefed and informed all people involved about the details of the findings and subsequent conclusions. Given the sensitive and personal nature of the relationships being researched, effective, appropriate and sensitive feedback was delivered in such a way to not cause any longitudinal effects on any individual involved (child, carer, social worker or authority). While understandings and knowledge were sought to aid development, the relationships remained as unaffected as possible; participants were left as they were found, only sometime later (Morrow, 2009).

Locating the self: Reflexivity.

In addition to the stated reasoning for selecting a case study method, a longitudinal research investigation centred on attachment relationships must also be cognisant of the potential for relationship development between the researcher and the subjects; the researcher must be mindful of their role within the researched environment and thus their influence over the quality of the data gathered. Given the great depth of experience and candid portrayal of emotion sought from this investigation, a researcher frequently present in the child's life and presenting a sympathetic, interested response, could have caused an environmental contamination; in addition to relationship difficulty or confusion for the child. Therefore, another advantage of employing the case study approach was the ability to then incorporate numerous methods that still reached to the subjects' experiences and produced rich and valuable primary data but from a safer distance.

The foster agency's clinical team insisted on the maintenance of a safe-distance to ensure children were not subjected to additional relationship breakdown, and adherence to this stipulation was respected on two levels. The first was to respect the

child as a human being and not to subject them to being simply for investigative gain. Accordingly their living situation was to be influenced as little as possible by the researcher. By not embedding a researcher regularly into their lives, children were not given an extended opportunity to form a relationship with the researcher. Although this negated the use of observational methods, it was respectful of the children's relational welfare.

The second level at which this stipulation was maintained was a data-quality consideration. Charting the development of relationships within an authentic foster setting was what the investigation sought to explore and the presence of the researcher would have altered the relationship dynamics if often present. There would have been risk to the quality of the longitudinal data had such a design been employed as children could potentially have included an additional relationship in their assessment scales. Both the need to refrain from building a close relationship with the child – owing to the knowledge the relationship would be transient – and the intention to obtain as authentic data as possible lead to the requirement of maintaining a safe-distance during the investigation.

It is acknowledged that the introduction of novel processes (diary maintenance, relationship assessments and interviews) influences the foster placement anyway. It would be naïve to believe that by asking children to be reflective upon the events and people in their lives in a way they had not formally done so previously, meant the research added a new dimension to their current foster placements. Therefore, the impact of the research could never be fully omitted, but the impact of this reflection is not necessarily a negative repercussion and posed positive processes for children to consider their relationships and actions.

In addition to these research tools, the researcher and the children would also meet on two occasions (the introduction of the project and the final interview). This level of interaction between the researcher and the children in addition to the demands of

the tasks were considered in parallel with other meetings the children had with social workers and the production of life-books (a chronological account of a child's time in care, which is used to help remember the people and places they have lived) and other items to share at contact (sessions where children might meet relatives from their time prior to living in care). Accordingly, the authority did not consider these measures an unreasonable or onerous task for the children to undertake; willing participation however, was, of course, essential. Children were responsible for their own engagement and were able to depart the investigation at any point.

It was with great consideration that each child's living situation be as free from additional interference as possible. In order to maintain the placement authenticity, the case study was reasoned as the most effective approach for deriving the rich data over time, concomitantly with as little interference with the children and carers' lives as possible. The inclusion of the Revised AAQ, Longitudinal Diaries and Interviews facilitated this ethical approach to accessing intimate perceptions of developing relationships.

Ethics:

Significant attention and detail is now paid to the ethics of research with children. Research governance has expanded and a burgeoning literature is emerging that describes processes, practices and questions that arise in research with minors and their families (Morrow, 2009). Ethics are of particularly prominent concern during longitudinal research projects, and while this may be irksome and burdensome for some researchers (Hammersley, 2009; Morrow, 2009), and troublesome given the tenets of ethical and moral research can vary across the world (Ulrich, 2003), Morrow (2009) maintains all guidelines uphold the goals of balancing the interests of the individuals with those of the community, family, or society and the goals of the research enquiry.

Of utmost concern and focus for the ethical considerations of this research was that no social, physical or psychological harm would be caused to the children who were prepared to take part. By adhering to the code of conduct outlined through the University's, BERA's, AFC's and BPS' ethical procedures the research was able to ensure that children were not negatively affected as a result of this research taking place. The children and foster carers were approached for participative consent, and information outlining the investigation was offered to all parties involved. Children were regularly reminded of their right to withdraw at any given time and on-going assessments were made to ensure that children were not continuing at the expense of feeling distress. Willing participation was essential for the continuity of the study. Further, anonymity has been ensured at all times during the investigation. Personal information was only made available at AFC Head Office in Manchester, and the production of sensitive material in diaries and interviews were all made anonymous before leaving the AFC Head Office. All names and locations were reassigned pseudo titles and care was taken to ensure that no child or carer might be identified through reading any of the created documents or reports.

All information produced was made available to AFC and it was conducted under the agreement that any necessary information regarding the safety of the child was reported directly to the clinical director of the foster agency. In addition to scrutinising the research agenda and research tools for their ethical clearance, I as the researcher had to satisfy statutory requirements of producing enhanced CRB disclosure certificates for each local authority to be included in the research sample.

Children were informed at least two weeks before any face-to-face visit with the researcher and were offered the choice of whether to meet one-to-one or whether they wished to have their social worker present simultaneously. The research was mindful to respect the autonomy of each child willing to take part.

Confirmation and support was given in addition to this ethical clearance from 'Advanced Childcare' psychologists and head of children's services, ensuring the foster agency were satisfied with the intentions, procedures, methods and motivations of the research project.

The etiquette of research with children

"Take two biologically similar children and rear them in different environments and they will most certainly differ in terms of their behaviour, their physique, their motivation and their achievements. Take two biologically different children and rear them together, giving them similar opportunities and experience, and they too will differ" (Greig, Taylor & Mackay, 2007 p.3).

The product of the above phenomena has created much interest from across the academic fields of psychology, biology, sociology, health and education in the pursuit of comprehension about why children behave and develop in the way they do. Research has extensively sought to understand the developing child, to make sense of the learning and changes that occur. However, as Greig et al (2007) eagerly point out, in that very quest for such understanding, researchers face multiple challenges, considerations and protocols for the way investigations are designed, portrayed and disseminated; and well they should.

It has been the case historically that much child-based research has been done *on* children, cast in the parameters and expectations of the adult 'experts', often in unnatural settings and with minimal consultation with the child (Greene & Hogan, 2005). And that is the critical element: consultation *with* the child. Research investigations should occur with children so that we might better understand the studied phenomena as the child understands it; children are beings in their own right and must not be studied as 'miniature adults' (Greig et al, 2007). The social and emotional relationships of a child are more fluid than at any other time in the lifespan and thus research methods ought to

be cognisant of this and acutely mindful not to accentuate the 'difference' that qualifies the child as interesting to research in the first place (Green & Hogan, 2005; Greig et al, 2007). It is the challenge of the researcher to establish a method that elicits an understanding from the perspective of the child; or as was once asked at a child development conference, 'how do we extract what the child thinks and not what we think they think?'

Debate has perpetuated about the assumption that children are not able to contribute reliably towards discussions on their feelings, needs and future. This, in turn, has affected the nature of the research questions that have been posed and a delay in the development of methods for speaking directly to children and eliciting their views. Hill (1996) suggested that researchers "have largely ignored the child's point of view, subjective opinions and the methods which need to be used to obtain them" (Greig et al, 2007 p. 89).

Bruck and Ceci (1999) offered justification for Hill's suggestion; they outlined a detailed debate concerning the reliability of children's voices in research. They engaged discussion about the susceptibility of children's memory to suggestion, citing cases of alleged sexual abuse where children's testimonies were accepted by prosecutions to sanction the accused, yet some of those cases were muddied by presentation of leading questions to the children. Bruck & Ceci (1999) conclude from their review of multiple studies regarding the reliability of children's memory recall that central features of events are largely recalled with accuracy and that non-central features are more susceptible to suggestion through leading questioning. Of note, Ceci and Bruck's (1993) earlier review suggested an increase in susceptibility to misleads with younger ages.

However, what is apparent through this literature is the influence of the researcher's ability. During interviews, the reliability of the children's accounts ought not to be the centre of that which is scrutinised; rather, as Bruck & Ceci (1999) allude, it is the reliability of the researcher's interviewing skills that determine the reliability of

the responses. Granting the necessary attendance to the reliability of the children's responses, readers are reminded that central features of an experience are recalled with greater accuracy. Moreover, and cognisant of this insight, this research considers the felt emotional connection between a child and their carer. Ultimately it is the child's perception of their relationships that is of interest, thus accordingly, emotions and perceptions experienced may be considered real provided they feel real to the child. Reliability in this case is less about absolute fact and more about relational perception.

It is therefore of paramount concern to this investigation to convey the relationships under scrutiny through the very words, emotions and experiences of the child and to be cognisant of the appropriateness of the data-collection methods; in particular the wording and communication of the research tools. After all, as Milton Erickson suggested: no two children are alike and no two children can be *expected* to understand the same experiences in the same way. It is imperative not to try and fit their experiences to our concept of what they should be.

Research agenda

Research Goals: to let the child speak of their experiences and not to speak on their behalf. A goal is to empower the child and to make foster authorities and carers aware of the children's thoughts (Unrau, 2008).

The methodological intention of this research is to seek exploratory findings and to go beyond the stage of merely identifying correlations or describing certain behaviours. Its intention is to tap the diverse and complex experiences of these children so that greater knowledge may lead to more effective understandings of their situation. Indeed, the methods chosen for this research reflect the theoretical assumptions of attachment theory, given this is an investigation that places this particular 'lens' over the children as a means of researching and scrutinising their relationships. Therefore, any other who chooses to read and utilise this research must be aware that a required caveat

to the research questions should be: 'this is how *attachment theory* can inform our understanding of this child and their experiences'.

Knowledge and Understanding

In accordance with Greig et al (2007), of utmost importance when designing the research questions is consideration for how those questions bear importance to the children. Questions should be asked that deliver answers capable of leading to an improvement in the lives of children and the worlds in which they live.

At the same time, the research must be considerate of the fact that it is steeped in numerous biases and assumptions, and as discussed, a weakness of any project is the limited viewpoint, as the research environment is shackled by the assumptions and understandings of its theoretical and philosophical background (Cupchik, 2001). To illustrate this point, a biologist, a psychologist and a sociologist (and each of those branched perspectives) will each understand the phenomena being studied in a different way, each with its own nuances, which will ultimately impact the type of questions they ask, and events on which they place analytical significance. These questions also shape the research methods that are to be employed, even guiding the research toward sometimes distinctly valuing quantitative or qualitative procedures.

Qualitative or Quantitative inquiry

Alan Rayner (2010) suggested that qualitative and quantitative inquiries are not as oppositional as many researches perhaps consider, or wish to think. Rather than feeling the obligation to see them as distinct approaches, he encourages a more united, complimentary approach that is cognisant of how one may benefit the other. He disputes a dualistic stance, emphasising a 'joint of pivotal significance' where one gains identity from the existence of the other, and therefore it is impossible to consider one in the complete absence of the other.

Much psychological research has endeavoured to quantify its investigations in order to give it greater scientific clout amongst the research community. Indeed, this empirical approach to the human mind has advanced the credibility of such research owing to the historically experimental preference of science and the ability to gain statistical significance on the findings (McGhee, 2001).

Such a pursuit may lead to the reduction of humans to numerical figures, statistically comparing subgroups with control groups. This leads to the explanation of a topic, highlighting the influence of a variable on a given focus of study, but this approach does not readily develop understanding (Greig et al, 2007). Cupchik's (2001) ideals advocated the recognition of mixed methods as a more wholesome approach to understanding new topics. Accordingly, this research employed mixed methods because such research can be used to gain new perspectives on phenomena about which much is already known, but also, to better understand phenomena about which little is known (Kwong & Bartholomew, 2011). Investigating this research topic with a mixed methodology allows me to consider whether current ways of conceptualising attachment bonds are satiated and to better understand the relationship potential of children in long-term foster care. Indeed, Kwong and Bartholomew (2011) add, "qualitative data can enhance understanding by allowing for richer expression of participants' experiences" (p.425) which is the absolute intention of this research investigation.

Negotiating access and Gaining Consent

There can often arise concern of exploitation when attempting to undertake sensitive research with children (Greig at al, 2007), and therefore negotiating access from the relevant gatekeepers is essential.

Children must also be considered active and free agents within the research, capable of making their own decisions and contributing understanding free from the closed mind of the researcher's engendered expectations (Holmila et al, 2011). It is

therefore of paramount concern that consent to partake in the research is gained from the children themselves and as part of that, negotiating access to the sample consisted of explaining the underlying theory of the research to the children.

This was accomplished through initial explanation and teaching of the research project to the Social Workers and Care Support Workers at Advanced Childcare. In turn, and with an established relationship with the child, they subsequently explained the research to the children, being cognisant of answering all questions openly and honestly to help create a non-threatening atmosphere regarding the research project. At this moment, the children's support workers also explained the assessment tools and worked through the revised AAQ to establish clarity over the longitudinal tasks.

It is worthy of note how problematic it is, when attempting to identify areas of improvement for a care-system, to find agents of that system willing to grant access to observe and record what is taking place. There exists a concern of exposing the pitfalls of what is currently under operation, and while the attempt to identify improvements might appear a positive development in offering suggestive advancements, to those outside the system, to those who operate and implement the current system, such investigative attempts pose threat and concern over unsettling the status-quo. This research is therefore extremely grateful and indebted to Advanced Child Care for enabling this research to take place. As Greig at al (2007) suggested, negotiating access is a difficult balance of offering well-meaning intentions and tactical consideration of the agents' membership and likely fondness of that system. It is essential that all care-system investigations champion their hope of delivering a more caring system and not present themselves as unsettling or harmful to those currently receiving care.

Fortunately, Advanced Childcare seeks to continuously improve the services they are able to offer the children in their care. Their primary focus is to improve the living situations and relationship experiences of the children they care for and wish to engage in continually improving practices by which to understand the children's

experiences (Nick Dunster, 2012, Clinical Director of Advanced Foster Care, personal communication).

Consent for participation in this research ultimately came from numerous sources. First and foremost from the children whose relationships were of principal focus. Their consent was gained through detailed explanation of the research, the methods to be used and explanation of their rights in relation to withdrawal. The children were encouraged to discuss the project with their foster carers and social workers. The children were asked to sign a form to acknowledge their participative agreement and this was written with appropriate vocabulary (see Appendix Six) and explained verbally with continual opportunity to ask questions.

Similarly, consent was gained from the foster carers following initial introduction to the project by Advanced Foster Care's social work team. Appropriate carers were identified and approached by the lead social worker who explained the purpose and the extent of the research investigation. Although the research was dependent on the children's engagement with the research tools, it was acknowledged that the children, for guidance and support, would likely approach foster carers with research materials during the course of the investigation. Prior to giving consent, carers were asked to discuss the research with the children in their care to ensure their consent was given only after the establishing the child was happy to take part.

Of final note, although of principal action, the fostering authority – Advanced Foster Care – provided consent for the research following their seeking of approval from the local authority. Detailed presentation of theoretical and methodological assumptions were made to the clinical and fostering directors to provide as much detail regarding the intention and the demands of the research on the children's abilities and the foster carers' time. In light of this consent being gained, the Foster Agency then proceeded to identify the suitable candidates within their region.

Measures of Attachment:

The Revised AAQ

The attachment specific measure utilised within this research was an adaptation of West et al's (1998) Adolescent Attachment Questionnaire (AAQ). West's measure was a self-report assessment scale that employs a 5-point likert scale to gauge the strength of response to a series of statements. It was designed to tap attachment indicators on three scales: (a) 'Angry Distress', which tapped the amount of anger in the child-caregiver relationship; (b) 'Availability', which assessed the individual's confidence in the availability and responsiveness of the attachment figure; and (c) 'Goal Corrected Partnership' which assessed the extent to which the individual considers and is empathetic to the needs and feelings of the attachment figure. This measure was not designed as an assessment of specific attachment style, rather a measure of attachment relationship quality on a secure-insecure dimension.

West's measure had been utilised successfully for comparable purposes by Carr (2011) who was able to infer the existence of an attachment relationship on the basis of adolescents' responses to the self-report measures and, in addition, the participants of West et al's (1998) AAQ were also subjects in the benchmarking procedure of Main et al's (1978) Adult Attachment Interview (AAI); the comparison of assessments showed significant convergent validity. The AAI has been upheld as a benchmark for attachment assessments for its scrupulous detail and interpretation seemingly brings to light very deep understandings of the internal attachment constructs. On the bases of validity and time required for execution, the utilisation of the AAQ was considered a suitable and appropriate way to measure the presence of attachment relationships. Owing to its self-report nature this research tool sits comfortably within the social-psychological conceptualisation of attachment despite its association with the more psychodynamic approach of Main et al's (1978) AAI.

However, as mentioned, this research utilised a re-worked version of the AAQ - one that was more comprehensible for younger children in early-adolescence (10-13). Replacing the text element and the likert scale (rated 1-5), a representative pictorial 'scale' assisted the children in experiencing their response with greater relativity, less abstract than a rating scale comprised of specific integers. It is suggested that such a method would be less daunting to a child of this age as placing objects on a chart more readily resembles games which they have encountered previously, reducing anxieties caused by numerical rating demands which may evoke worries of assessment and outcome anxiety. Additionally, Rowe and Carnelley (2005) posited that: "diagrammatic representations…are thought to elicit qualitatively different information than verbal measures. In completing diagrammatic measures, people are typically thought to go beyond information that can be easily articulated and express felt emotional connection to others" (p.501). Pilot research revealed the need for identification of the scale mid-point, but also that children were able to conceive their own, personalised perceptions of what each extremity of the scale symbolised.

Essentially this re-worked AAQ was designed to give children opportunity to exercise higher reflexivity within their responses. Children from the pilot research were unable to make sense of their orally articulated answers, reflect upon their thoughts and then express them within the confines of specific integers. Further, rating relationships in isolation caused the children to forget comparisons and rate disparate relationships equally (identified through post-rating confirmation of responses). Spano (2003) advised researchers working with children in early adolescence to be cognisant of their developing identity as an individual, as it significantly influences *what* and *how* they are able to articulate their relational thoughts.

Although the children's ability to articulate their emotions and desires may be increasing, they are often compelled to express themselves more readily through actions (Spano, 2003). In support of this, Rowe and Carnelley (2005) who utilised a 'bulls eye'

concentric board, with the 'self' located at the centre of the chart, explained that mapping techniques such as those utilised here, where respondents have to place their responses on the chart, are potentially superior to other types of self-assessment for they enable participants to place significant others upon the rating platform in an unguarded manner. They are also easy and time efficient measures to administer and complete. Of absolute importance to understanding the relationship networks of children in foster care, this measure enabled children to rate two or more attachment figures comparably *and* without being obliged to rank one above the other. Such protocol "…may allow for more accurate representation of attachment network[s]" (Rowe & Carnelley, 2005 p.501). Thus, the revised-AAQ facilitated these requirements with a measure that was more grounded in their real-life experience, offering them a chance to consider, reflect upon and be present in the decision of their attachment-based responses.

By reworking the AAQ in this way it enabled the child a sense of relatedness between the relationships they were rating. In the pilot study research numerical ratings identified the arbitrary link between the children's relationships and the set integers. However, by having a fluid scale that lacked fixed integers and inflexible boundaries, children felt more able to rate their relationships comparably. To elucidate, children would often rate their first relationship on the scale and then adjust their placement when allocating subsequent relationship judgements. Children said: e.g. "I'm going to move that one because I actually feel closer to him than I do to her" – highlighting the enacting of the scale's relative nature.

Previously utilised attachment-measure procedures have implemented snapshot instruments or single implemented interviews or tests. Given the developmental nature of this specific research sample, change over time was of high interest; the research sought to understand developments in the attachment representations of the children. Thus the revised AAQ sought measures from the children at regular intervals during the study (every month). This readily enabled identification of change over time and helped

remove rating issues such as situation specific responses that do not reflect a more general attitude (Travis et al, 2001). Compiling the longitudinal responses enabled clearer depiction of generalised representational change. By repeating the measure throughout the investigation, each child produced a graphical account of each relationship within the foster home. By placing figures along the dimensions of the revised AAQ, the children created a series of 'triangles' that represented the security of their relationships. By reverse scoring the Angry-Distress scale during data analysis, this method gave access to a visual representation over time about how the relationships (a) remained the same, (b) increased in felt security or (c) increased in felt insecurity. For an increasingly secure child, the revised AAQ showed an increase in the size of the triangle over time, i.e. the measures from the child became increasingly secure, assigning more positive positions to figures on their charts.

Longitudinal Diaries

Key attachment indicators were also measured through the *longitudinal diary* records. These consisted of semi-structured content to direct the children's responses toward considering their behaviours and interactions with their carers and animals (see Appendix Four for guided diary topics). Wheeler and Reis (1991) contend that diaries are most powerful when the investigation seeks access to phenomena as they unfold over time for they enable relatively synchronous, focused recording of events as they unfold. Although retrospective reports have their uses and observational methods have their place, diaries are particularly powerful tools for recording relationship-focused data over longer periods of time (Bolger, Davis & Rafaeli, 2003). Rather than a completely open diary it was necessary to provide the participants with a structured diary to avoid their bias in selecting certain instances and overlooking others (Bolger et al, 2003). However, it was also apparent from the pilot investigation that children wished to contribute additional information than that which was requested. Accordingly, children

were afforded ‘free space’ in which they could contribute anything additional they so wished.

The diaries were constructed with consideration towards sensitivity and comprehension. Content guidelines required children to consider a balance of positive and negative emotions, yet the intention was to tap the behaviours and emotions following events that were likely to activate the attachment system. It was thus - as Bolger described - strategically organised (Bolger et al, 2003).

Practically, the diaries were presented to the children in the form of a booklet-folder, containing all twenty weeks worth of diary entries and each of the forthcoming four-weekly AAQ assessments. The booklets consisted of two A4 sides per week; the structured responses on one side and the free space on the other. Children were encouraged to personalise their booklets and to utilise the free space for whatever they wished to record, communicate or leave blank, depending on their inclinations.

The diaries were hand-written, although opportunity for completion using a computer was also provided. Children were asked to complete their diaries at least once a week and were entitled to customise pages. Cognisant of the need for commitment to these diaries, they were implemented as *interval*-contingent measures (Wheeler & Reis, 1991). It is accepted that an *event*-contingent design (one that requires participants to record each time a significant event occurs) would have provided easier data from which to observe key attachment events, but it was recognised that children were unlikely to manage this design or recognise when key moments arose. Accordingly an interval-contingent design was implemented to ensure each participant at least engaged with relational behaviour recall on a regular basis. For the purpose of gaining informed consent and investigative transparency, children were notified that the researcher would read their diaries (Bolger et al, 2003) and that certain content may be discussed to gain further insight to their reports.

Longitudinal diary methods of data collection have received criticism for their inability to demonstrate cause and effect relationships owing to participants' potential to delay recording of information beyond opportune moments. In the event of such delays there are likely decrements in accuracy or reliability of the reports (Bolger et al, 2003). Of course, this opinion depends on whether it is the factual account of the event which is of interest or the meaning and significance it had on the participant. However, diary methods are particularly useful for non-experimental investigations, as per this research, such that reliability of identifying causation needs not be so concerning (Kennedy et al, 2002). Indeed, Bolger et al (2003) comment that a most powerful use of diaries is within transitional events, where diaries are particularly useful for illuminating psychological change and the precursors to it. These are pertinent times for diary methods of data collection as they target periods where people and their environments are in flux (Mendoza et al, 2002), which is a particularly important time to understand experiences of time and temporal patterns of experience.

Diary methods may be accused of being limited due to the demands of their level of engagement in reflection upon and recoding of events; intense engagement over a period of time could lead to felt burdening and a potential lack of detailed reporting over time (Reis & Gable, 2000). Alternatively, condensed diaries may risk losing in-depth reporting such that important events are not recognised in the way intended (Bolger et al, 2003). Additionally, longitudinal diaries are at risk of participant habituation which Gleason et al, 2001, describe as either the skimming over of regularly attended sections or the omission of events at pertinent times. These concerns are noteworthy as limitations, however the depth of the data that can be generated about important events in real-time offsets them. Suedfeld and Pennebaker (1997) even suggested that habituation may be considered less a weakness and more a strength, in so far as participants become familiar with the type of events to which the diary is interested, and these authors document therapeutic-like outcomes through a form of self-

reflective recollection. This is pertinent within a sample such as this where the child-respondents are asked to consider their relational behaviours with caregivers and to reflect upon events pertaining to attachment-focused interactions. According to Suedfeld and Pennebaker (1997), diaries may benefit the researcher with in-depth data, and the participant with critical reflection about the events that they record.

Furthermore, diaries are also well suited to capturing information about pertinent events the researcher had not accounted for in advance. Pilot study reflections led to the inclusion of free-space in the sample's diaries for these were the areas where children offered candid reports and insights to intimate moments that reflected their changing relational perceptions. Bolger et al (2003) indicate that researchers need to be aware of how truthful diary reports are if respondents fear others may view their entries. This was mitigated through giving the children permission to seal their weekly responses in an envelope to maintain their privacy (Laurenceau et al, 2005). This was intended to decrease the chance of children responding without complete truth regarding interpersonal events and ensuing emotions.

To protect the child from becoming simply an observed object, subjected to the assumptions and assertions of the researcher, it was important to maintain diligence about the involvement of the child as an active member of the research inquiry. They had to become key players in the acquisition of knowledge so that we were better able to listen to their voices and empower them (Greig et al, 2007). The children were active members of the investigation throughout: the maintenance of diary entries and their repeated engagement with the revised-AAQ ensured the investigation remained concurrent with their daily lives. Accordingly, the data made available to the researcher through the diaries and the revised AAQ assessments was subject principally to the children's active engagement. Without their participation these would not have returned any data.

Successful achievement of this requires the researcher to question the assumptions behind the questions they ask the children. Adult researchers need to remember that children think differently and therefore ask of themselves how the child thinks and therefore how they understand the questions being asked of them (Greig et al, 2007). Indeed, effective researcher will question the assumptions behind 'how' as well as 'what' is asked with each question and consider the circumstance where different children will still have different understandings of the same questions. Necessary to the accomplishment of this task is the entering of the child's world – using words and explanations with which they feel familiar. This is a pertinent concept to fulfil the agenda of completing research *with* children and keeping them active participants. Accordingly, the scales of the revised AAQ were explained to each child in a way that enabled their own meaning to be projected upon the scale. Defining each end of the scale was personal to each child within the limits of a favourable and a non-favourable direction of rating.

Semi-Structured Interviews

Thus, the third method used to gather data from each of the case studies were *summative semi-structured interviews*. These explored the contents of the diaries and afforded opportunity for further clarity regarding pertinent events during the period of investigation. The diaries principal function was to investigate experiences relating to how the child perceived and used their carer and animal at times of need. Mindful of predominantly discussing the recollection of distress, the interviews took the form of an informal conversation with each of the children. Their right to withdraw or omit answering a question was explained at the beginning, and children were reminded of this at a suitable point during the conversation. This approach conformed to the ethical stipulations put in place by Advanced Foster Care. Additionally, children were invited to discuss any topics they so wished if not raised by the researcher.

Carruther's (1990) suggested that inexperienced interviewers, or those where an authentic flow of sensitive conversation was required, can risk losing coherence with the aims of the interview. Collecting the right data from an interview requires asking appropriate questions and to ensure the inexperienced researcher access the information they seek, semi-structured interviews often provide the intermediary position between maintaining coherent content whilst allowing the engagement with an authentic conversation. These interviews were therefore constructed with that in mind, cognisant of the need to remain purposeful in their pursuit of pertinent information that aided the answering of the research questions.

Therefore, grounding these questions within the theoretical framework was of great importance; it ensured relevance to the investigation's aims and would therefore assist comprehension during the analysis, and inference of meaning within participants' responses. The questions that formed this semi-structured content were largely selected from the Child Attachment Interview (CAI) (Shmueli-Goetz, Target, Fonagy & Datta, 2008) which was created following the identification of a 'measurement gap' in the attachment literature for middle childhood. The CAI coding system is based upon the AAI and deduces four attachment categories. As this investigation did not seek to classify categories of attachment, questions were utilised within the semi-structured interview as guidance rather than as the compliance to the CAI protocol.

The second purpose of the interview was to extend the detail of events recorded in the diary. Cognisant of Kwong & Bartholomew's (2011) conceptualisation of attachment bonds, interviews sought to extrapolate circumstances through which carers and animals might have fulfilled the functions of an attachment figure. In this sense, the interviews also served as a means of triangulating the information provided through the diaries as perceptions of pertinent events were compared between dairy reports and verbal responses during the interview. This serves to increase the validity of responses.

The final purpose of the interview was to extend the data collected through the revised-AAQ measure. Children provided reports to explain their changes in ratings synchronously with monthly AAQ engagement, yet further summative information was gathered from the children when comparing initial and final revised-AAQ responses.

Triangulation of Data

Triangulation of data refers to the use of more than one approach to the investigation of a research question in order to enhance the confidence in the findings. Webb (1966) suggested: "once a proposition has been confirmed by two or more independent measurement processes, the uncertainty of its interpretation is greatly reduced. The most persuasive evidence comes through the triangulation of measurement processes" (p.3).

Denzin (1970) enhanced the idea of triangulation and outlined four forms of the notion. This research employs his fourth category – Methodological Triangulation – which refers to the use of more than one method for gathering data. This may be further explicated by the use of *between-method* triangulation, which describes the practice of using contrasting research methods. What this provides the research investigation is a level of robustness in the event of their uncovering convergent findings through the crosschecking of data sets. It is a particularly useful way of identifying consistency within the data in a way that single-method investigations are lacking.

A between-method triangulation here does not indicate a sole subscription to a notion of realism that implies there can be a single definitive account of the social world. Neither does it indicate a sole subscription to a notion of constructivism that implies findings should be considered as just one of many possible depictions of social life; here it refers to the quest for consistency in the research stories and the relationships conveyed across the research period.

The AAQ and associated explanations for movements were able to be cross-referenced against the recordings in the longitudinal diary accounts. With this structure

in place it would be possible to identify discord between the methods of relationship measurement. Equally, the final interviews enabled a strong cross-referencing opportunities by way of seeking clarification, explanation and extension of details raised in through each of the three data sources.

Chronology of Measurement Development & Data Collection

In the formation of this research investigation lay a critical need to understand the children's comprehension and thus the utility of the proposed investigative measures. Accordingly, a pilot study was used to preliminarily judge the efficacy of the research tools. Five children within the same age bracket, educational status and primary language as the main investigation's sample were asked to complete example diary entries to ensure clarity of the guided sections. These pilot participants raised no issues with the diaries, however significant confusions were identified with the AAQ.

The pilot study indicated disconnection between the fixed integer rating scale of the AAQ and the sample's felt emotional appraisals of their relationships. They identified differences in their relationships that could not be reflected in their numerical ratings upon the West et al's (1998) AAQ rating scales. Accordingly, scales were reworked to provide a boundary free continuum of relationship portrayal. Thus ensued a further challenge; each child required the midpoint of the scale to be identified to discern the positive response side from the negative. They also wished for space to explain their decisions. In light of this, the AAQ was revised and redesigned to accommodate the children's need for free expression and a chance for qualification of their decisions.

Following the pilot study's completion and the reworking of the assessment scales, the foster authority were notified of the changes to the detail of the measures. Their research board passed these amendments before the main sample's participants were notified through their specific social worker about the project. Those who agreed to partake met with the researcher and offered their informed consent having had the

project explained to them for a second or third time. In this first meeting the research tools were introduced and a short conversation about their placements took place.

Over the course of the ensuing six months, children maintained their diary records on a weekly basis and their AAQ assessments on a four-weekly basis. Contact between the foster carers and the researcher was maintained weekly or bi-monthly as agreed with each carer at the start of the investigation. This was to support the foster carers in the event that children approached them with developing questions about the research investigation.

At the culmination of the diary maintenance, which coincided with the final AAQ assessment, the researcher contacted the carers and arranged a time that was mutually convenient to undertake the final form of data collection: the interview. The first interview was conducted with the foster carer whilst the children we at school. The interviews with the children took place with suitable warning that it was taking place and was conducted in the child's home.

The children's diaries were collected for the purposes of transcribing and returned within seven days as each child wished to keep their diary accounts having been given the choice. Transcription of interviews and diaries took place at the authority's head office to ensure that all data had been made anonymous before leaving the research 'site'. This was important for the protection of the children and the carers.

Results & Discussion:

Introduction

The data is presented within this chapter and the findings are discussed in context; one in which they are presented with discussion of existing literature. First, the graphically expressed revised-AAQ (West et al, 1998) data sets are presented on a case-by-case basis offering visual clarity of relationship development over time. Cognisant of the input from deeper qualitative comprehension, the graphical, numerical data is subsequently supported by the sample's explanations of movements, for these offer critical information regarding the precursors of change in the relationship perceptions.

The development of significant and routine events across the time span of the research are detailed with supporting evidence from the diaries and interviews to offer an individual case-study per child. These demonstrate some of the rich data that was generated by the children through their qualitative communications.

Next ensues collated data from the interviews and longitudinal diaries that are presented as evidence for the presence of a human-animal attachment bond, analyzed in accordance with Kwong and Bartholomew's (2011) outline of attachment tenets. The final presentation of data utilises the qualitative measures to demonstrate evidence for how the animal's presence assisted the development of the human-human relationships and are analysed with mindfulness of Schofield and Beek's (2009) policy influencing model of secure-base parenting.

In order to provide the most convincing data to address the research area, the researcher analysed the interview and diary transcripts independently before another scholar involved with the research did likewise. A scholar related to the research was employed so as to ensure comprehension of the theoretical lens through which the data were to be coded. Both researchers reviewed the sets of data and presented highly similar accounts that were in accordance with the tenets of attachment theory's

relationship definitions: secure base; safe haven; separation distress and proximity seeking (Kwong & Bartholomew, 2011).

Armstrong, Gosling, Weinman and Marteau (1997) suggested that inter-rater reliability has previously been more widely recognised as a process in quantitative research, however their empirical investigation revealed that qualitative researchers appeared able to form very close agreement in the analysis of themes through qualitative data sets. This inter-rater concordance provides support for the rigour of the investigation. By two researchers judging the same data there is great value added to the reliability of the data that is presented to illuminate the case.

The collated results are presented alongside the discussion to assist in contextualising the rich data within an existing literary body of attachment theory. Whilst each child's case study is unique, it is possible to consider the similarities of their experiences in accordance with the conceptualisations of attachment theory.

Case Studies

Each of the case studies opens with an overview of the particular child. These overviews were compiled by conversations with the carers and the agency team and serve to offer insight as to who these children are. There follows a pairing of the numerical and visual depictions of the changing relationship perceptions across each of the time points at which the children completed the revised AAQ. The tables provide the numerical analyses of the combined rating scales for Availability, Anger-Distress and Goal Corrected Partnership scores, and the accompanying graphs graphically represent the tables to the left. The purpose of the visually arresting graphs is to communicate the changing profiles described otherwise only through numbers. The larger the triangular shapes on the graphs the better the relationship perceptions felt by the child.

Case Study 1: Sam

Sam is thirteen years old and has been living in foster care for six years having been removed from her birth parents due to abuse and neglect. Contact is no longer maintained between Sam and her birth parents although there used to be contact with a grandfather who passed away. Sam has very mild learning difficulties. In her six years of foster care, Sam has lived with nine different families. In her current placement she has a male and female foster carer. The female, Sheila, is a full time foster carer while the male, Bruce, works a full-time job. Upon arrival with these carers, Sam was very quiet, isolated and distant from conversation. She lacked confidence and portrayed very little character. Her engagement with the animals was immediate although halted when she became aware the carers were present (description provided by carers). Her behaviour and interactions had been described as reserved and she showed little willingness to engage with the carers.

Numerical & Graphical representations of revised-AAQ scores depicting foster carer(s) & animal relationships.

AAQ – Start of Investigation:

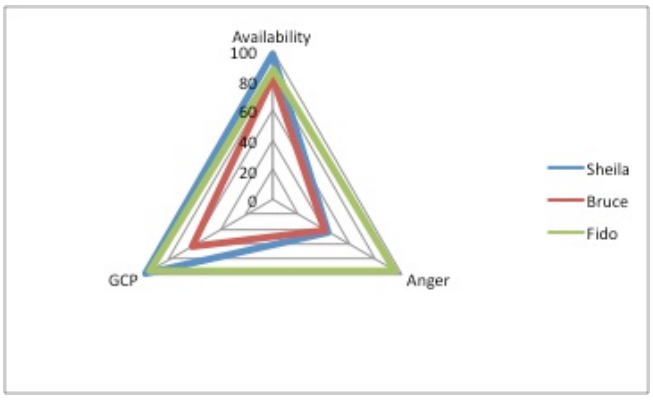
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Sheila	97.933	42.900	98.500
Bruce	81.967	40.267	62.400
Fido	87.533	94.700	95.167

Mean Ratings of AAQ Scales

(Visual Representation)

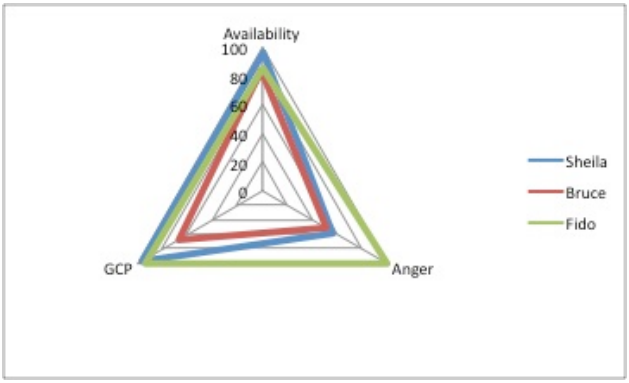


AAQ – Month 2:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Sheila	96.267	56.233	96.667
Bruce	84.067	51.233	67.1
Fido	85.633	100	93.967

Mean Ratings of AAQ Scales (Visual Representation)



Movements:

Anger – Sheila: *"I reckon she cares for me and means it when she says stuff so I don't get annoyed at her so quick. She asks me more about how I am doing."*

Anger – Fido: "*I moved Fido right to the end cos I never really feel angry at the dog at all. She's always real nice."*

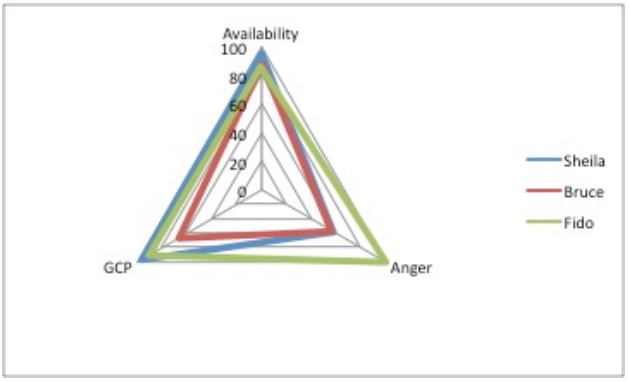
Anger – Bruce: "*I moved him up because I don't feel as angry but if I'm naughty he sometimes tells me off and that makes me feel angry."*

AAQ – Month 3:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Sheila	95.633	57.667	96.367
Bruce	87.833	56.233	66.667
Fido	86.267	100	90.633

Mean Ratings of AAQ Scales (Visual Representation)



Movements:

Availability – Bruce: *"I moved Bruce because I feel closer with Bruce now and he does a lot more with me. Sheila and Fido are always there for me so I feel much the same about them really, but I feel like Bruce is better but he's not quite the same. It's easier to talk to Sheila."*

Anger: *"I put Bruce lower down cos he really doesn't like being disturbed when he's angry and he's always busy so I don't get to help him much. He likes doing things on his own. I put them [Sheila and Fido] there cos I love helping them… we're a team, but he's [Bruce] always busy so I don't get to help him much."*

AAQ – Month 4:

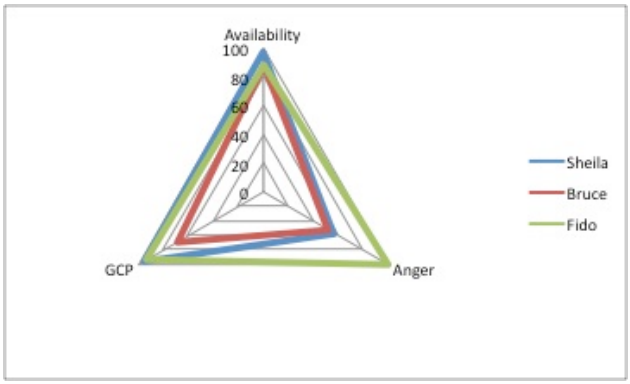
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Sheila	97.3	56.267	95.733
Bruce	88.033	51.767	69
Fido	88.367	100	93.867

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Sam: "*I feel a bit better about them all so I moved them a bit cos I feel better as a family.*"

AAQ – Month 5:

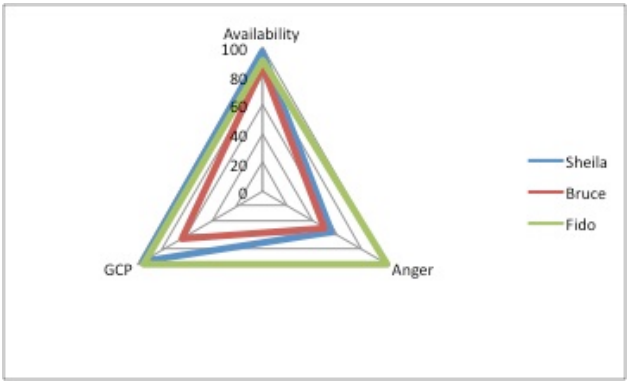
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Sheila	97.2	55.3	96.033
Bruce	86.667	49.7	64.667
Fido	90.967	100	95.433

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability – Fido: "*I moved Fido up cos when I was sad she knew about it right away and was trying to help me feel better by being with me.*"

GCP – Bruce: *"I moved Bruce a little bit because I felt like he didn't want me to help him much."*

Anger – having moved Bruce & Sheila down: *"I can't explain it. Not because I don't want to but because I don't know. Just sometimes I feel right angry at them"*

AAQ - End of Investigation:

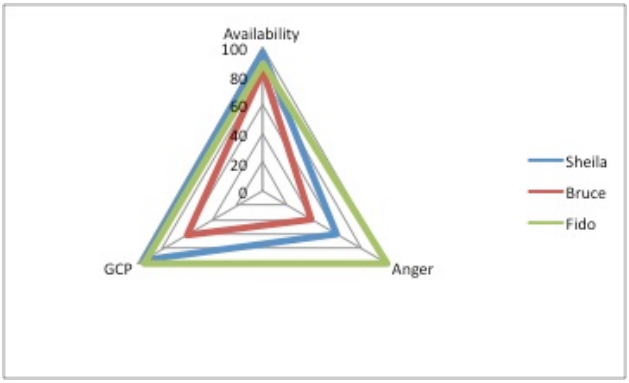
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Sheila	96.267	59.400	95.100
Bruce	84.000	39.067	60.433
Fido	88.767	100.000	94.900

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Sam explained: "*I had to move them all down ever so slightly because I couldn't make the line any longer. In my head the line is longer cos I keep feeling better and better about them all but they're not the same so I don't want to put them all right on the end. I feel happy here. They are nice people and they make me feel good.*"

Moments that matter

Moving in to feeling settled:

Sam had been through nine placements during her time in foster care and this has been the most successful placement, judged by duration and personal development, to date. Sheila is her full time foster carer and makes *"every effort to include Sam as if she were my own daughter. I think it's only right, for her sake, that when she is here she is a part of the family, a real member of the family, and not easily passed around to new places at the drop of a hat. She'll comes on holiday with us, have Christmas with us. She's decided she's staying until she's 21 and can afford to move into her own place!"* (Sheila: Final Interview). Sheila describes the close bond between her and Sam: *"God, it's like I care for all the kids that come and stay with us, but since we've been long term and we've had Sam, I don't see a reason for that to change at all. Even if she gets her own way and stays here 'til she's 21! She's so lazy I expect I'll have to employ her myself! I would, you know, she's a great kid and we're lucky to have her with us"* (Sheila: Final Interview).

A significant change in the dynamics came after a matter of months of Sam being at Sheila and Bruce's house. Sam had been trying to sort something in the garden with her closest companion animal – Fido – when she called for help from Sheila. She recalls: *"I heard her shout 'mummy' and so I thought she was having a throwback and was upset. But then she said 'mummy can you help' and I knew she was calling me. It*

was strange and I wasn't sure how to react. I mean, I didn't want to shoot her down, but at the same time, I'm not her mummy. I see myself more as her Mum, which doesn't make sense I know."

When Sam first arrived in this placement she recalls thinking that Bruce and Sheila were a bit weird. She explains: "*Well at first I thought they were a bit weird, but they were nice. And they then got nicer and nicer and I like them a lot. They're always real nice to me. Sheila is also really nice to the animals so I cold tell she was gonna be a nice person. At the last place, there was a nice dog there, but he wasn't allowed in the house and I didn't think they were very nice. I don't know why they had him, they were never really that nice to him"* (Sam: Final Interview).

Sam moved on to talk about how that kindness toward the animals shaped her thoughts about Sheila and Bruce. *"Well, I don't trust many people, because of [describes abuse] but when I got here and they were so nice to the animals and they would help them with whatever they needed I could tell they would do the same for me. And like when I have a problem and I speak to Sheila about it I know that she will always try and help me out. So I trust them"* (Sam: Final Interview).

"*When she first moved here she was always keeping tabs on us and making sure she was going to picked up and that we were going to be here when she got back from school. It seemed no amount of reassuring her would settle her. But now she seems to have settled and she trusts us and knows that we're here for her. I am sure Fido has helped with this and without Fido it would leave a huge hole in Sam's life"* (Sheila: Final Interview).

A source that soothes

Sam enjoys feeling close to Sheila and Fido and particularly likes it that Fido seeks out interactions with her, particularly when Sam has had a hard time at school. Sam described: "*You know, when I've had a hard day it's nice to come back and have her*

[Fido] care about me. She always comes to see if I'm ok…and I don't have to call her… I love it and I like feeling that close with someone. Well she ain't a person but you know what I mean. And when she ain't here waiting for me at the door I get worried and this place ain't the same without her. Like when we got back from holiday and they weren't here, me and Sheila didn't like it so we went to get them right away and Fido kept giving me kisses. I felt much better when she was back and she wouldn't leave me alone" (Sam: Final Interview).

When Sam experienced fear at school as a result of the teacher's prank, she was scared she cried. She came home that evening and describes how: "*Fido knew I was sad when I came home and rather than jumping on me, she was like, real slow and she pushed her head into my neck and licked it…she knew something had happened and she makes me feel safe and happy like that. When the teacher did it, I was thinking that if Fido was here she would bark at her and then she'd stop"* (Sam: Final Interview).

When the teacher repeated the same prank the next day, upsetting Sam again, Sam told Sheila about it. Sheila said that she would have a word with the teacher to make her stop. Sam reported that she liked it when Sheila would help her out when she had issues. She likes it "*cos she cares for me and helps me sort out my problems"* Sam: Final Interview).

Sam's relationship with Fido has produced a rich level of data about the positive effect that Fido has upon Sam when she is distressed. She describes: "*I can't remember a time when I was feeling like everything was ok and I was completely happy with everything, but I'm not worrying at the moment, but I do always have these feelings that something might change. And they don't go away. Sitting down and stroking Fido helps me feel better when it happens though. I don't ever worry so much when I am with her cos I know she isn't going to get rid of me just cos she's bored. Fido is always there for me. I hope she doesn't get ill like the other one [another dog passed away] cos that would upset me and I know it would upset Sheila"* (Sam: Final Interview).

Developing Independence

Sam is happy in her placement because Sheila and Bruce trust her. She enjoys her freedom to walk to the shops, taking Fido with her, to buy a magazine and some sweets. This is the first time she has been trusted to go alone and Sam says that: "*it feels good that I can do things on my own. Well almost on my own, I feel more confident when Fido is with me and as though I can do more"* (Final Interview).

Partaking in routines and being responsible for daily interactions such as feeding and grooming are the responsibility of Sam. Being given the responsibility of these tasks has helped her learn to cooperate. Sheila said: "*She like owns those tasks and she does them really well. It's a good chance for her and I talk about things, and I know she feels good when she can help Fido out. She does have a couple of friends at school but she is so close to Fido, like she tells her all her problems and shares her news with her. It's amazing to see it. She get's more confident and independent when she is around Fido. Sometimes I see the start of a stroppy independent teenager in there and I can't wait for her unleash that!"* (Sheila: Final Interview).

When Sam first arrived, Sheila believes Fido was a real aid in helping her settle into her own routine. "*She immediately had someone to bond with and she clearly enjoys her being here. I think it broke the ice and it meant we always had something to talk about and do together. I notice their bond most when she has something difficult going on, or if she has something big to think about. Tough questions she can give up on and run away from them, but when she has Fido around she is more confident and able to take her time"* (Sheila: Final Interview).

Moments of reciprocation

Sam talked about moments of reciprocation during her final interview. She talked about how Fido would seek and receive her affections and that they would share moments cuddled up on the sofa and Sam believes that Fido did that because she wanted to. She

said: "*I like people a lot, and I like telling them stuff and getting to know them. I want friends but I don't think friends want me as much. Like they don't spend much time with me and they don't invite me to things much. I don't know why"* (Sam: Final Interview).

Sheila suggested that: "*Sam seems to crave being close to other people but she always gets sad when they let her down. She's almost too giving as she wants to be friends with everybody but gets upset when they are not nice to her. It opens her up to get hurt too much. Fido is a real help to her as she seems really clicked in to how Sam feels"* (Sheila: Final Interview).

Sam has settled in her placement with Sheila, Bruce and Fido. She feels settled enough to want to remain there until she is able to move out of her own accord and has started to call Sheila 'mummy' on occasions when she is most in need. Sam explains that she is continually feeling more settled and happier in this home as the months go by feeling "like a daughter for the first time in any placement" (Sam: Final Interview). Sam's performance at school has improved since living with Sheila and Bruce and her teachers have noted her increased confidence and engagement with tasks at school. Sam has even found herself a weekend job vacuuming the local community hall that brings her a little money to spend in the shops. Sheila said: "*She is really blossoming into a more independent girl who has far more life skills now. She understands herself better than she did and she's much better at asking for help when she needs it. I think she'll do just fine!"* (Sheila: Final Interview).

Case Study 2: Alex

Alex is sixteen years old. She has been in foster care for seven years. She was taken away from her birth mother owing to severe abuse. She has learning difficulties and has been assessed by her clinical psychologist to have delayed cognitive development and a mental age of c.12years. Alex fears social evaluation by peers and adults and is deemed vulnerable by her desire to be close with anybody. She readily feels let down by others, has violent temper outbursts when she feels unfairly treated and repeatedly goes over her early experiences as a bargaining method for getting what she wants.

When alone, rather then exhibiting anger, Alex severely self-harms and receives therapy through a children's mental health hospital. She is educated outside of mainstream education and attends one-to-one classes focused on life skills. She has lived with numerous foster carers, the most recent of which was terminated due to violent encounters. She lives in her current placement with a single female foster carer and her cat. Alex arrived in this placement and was very quickly talkative and settled, calling it 'home' and her carer 'Mummy'. Having never been cuddled before she eventually sought the affections of her carer readily and returned verbal affections such as 'love you'. Alex is very possessive about her belongings and regularly makes sure all her things are in place. She can readily appear ungrateful when given new items.

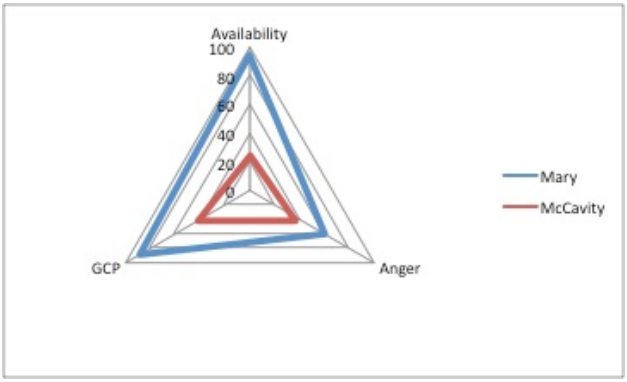
Numerical & Graphical representation of revised-AAQ scores depicting foster carer(s) and animal relationships.

AAQ –Start of investigation

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Mary	94.433	60.3	88.5
McCavity	24.6	36.7	41.533

Mean Ratings of AAQ Scales (Visual Representation)



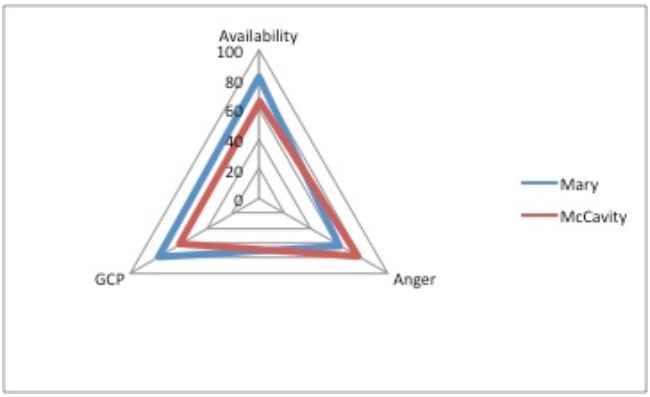
Alex, explained during the interview: "*I felt a bit funny saying I talked to McCavity at first. But Mary said it was alright.*" This explains the particularly small set of figures to describe the relationship with McCavity, relative to later ratings.

AAQ – Month 2:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Mary	81.9	62.467	77.7
McCavity	65.4	76.867	61.667

Mean Ratings of AAQ Scales (Visual Representation)



Movements:

GCP: "I moved Mary up more than McCavity cos when I help Mary she likes it and I like it when she laughs and talks to me. But I put McCavity down a bit cos when I help

him he sometimes walks off and does his own thing. I like helping him but I like helping Mary more cos then we can talk as well"

AAQ – Month 3:

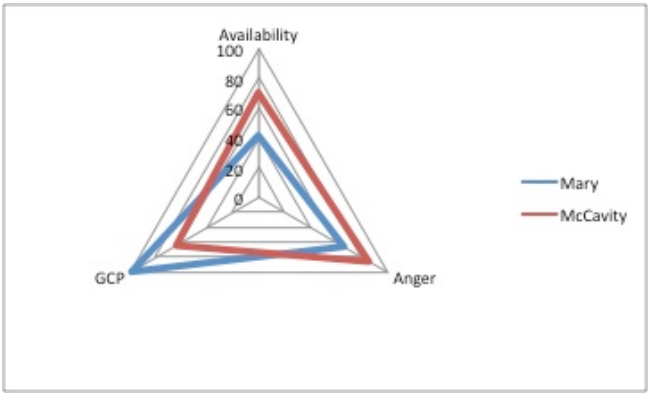
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Mary	41.9	65.933	98.8
McCavity	70.633	85.2	64.167

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability – Mary: *"I moved Mary down a lot cos when I got mad and was smashing things she said she would call the Police and get them to take me away unless I stopped which made me feel really upset."*

AAQ – Month 4:

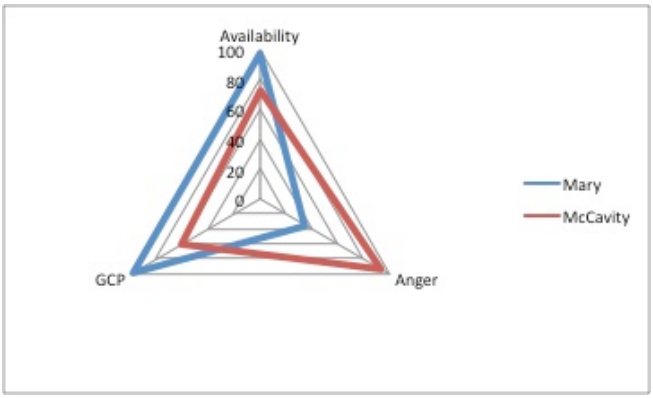
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Mary	97.5	34.367	98.033
McCavity	72.9	93.333	60.767

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Anger – Mary: *"I put down more anger with Mary cos she stopped me seeing McCavity and said I had to stay in my room until I wasn't being mad any more but McCavity stops*

me being mad. I was angry cos she wouldn't let me have a mobile and then she didn't want me near her"

AAQ – Month 5:

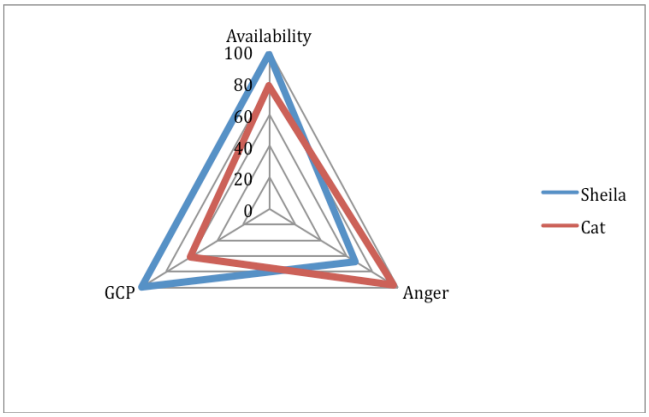
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Mary	98.967	66.467	98.867
McCavity	74.7	94.967	56.5

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability – Mary: "*Because when I was sad she cuddled me and told me she was always here for me when I needed helping.*"

Anger – Mary: "*I don't feel as angry with her no more cos she don't shout at me as much and she wants to care for me.*"

AAQ – End of investigation:

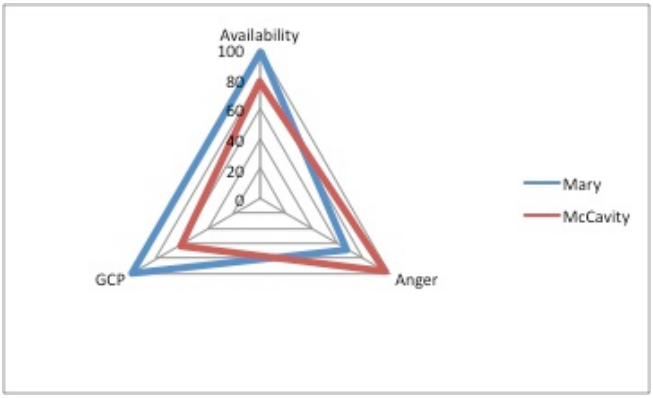
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Mary	98.333	66.867	99.167
McCavity	78.233	96.567	61.367

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability: "*I moved Mary and McCavity along because they have been real nice to me for a while and I think they want me here more. Like I'm more settled like that.*"

GCP: *"I moved them both up on this one because I like to help them both and they help me as well and it's nice that they do it for me and I do it for them too."*

Moments that matter

Relational Insight:

Alex has a particular eagerness to please people. Accordingly, she regularly behaves in ways that seek the approval of Mary when they are together but can become very angry when Mary's attention is diverted or if Mary has to curtail some of Alex's endeavours. When Alex does not get her way she is prone to angry and violent outbursts that have resulted in force being used to restrain her. These encounters are distressing to Alex and to Mary.

Alex quickly divulges personal information to new acquaintances but quickly becomes frustrated by a felt lack of reciprocation in her relationships. She said: "*I reckon I am nice to people but sometimes they take advantage of me and they are not really my friends"* (Alex: Final Interview). Mary suggested that Alex does not learn from such situations and repeatedly feels let down. During the final interview, Mary explained about the recurring pattern of behaviours that Alex portrays: "*We build very positive and caring relationships up to a point. After things have been calm and going well for a while, there starts another blow up and they can get real nasty"* (Mary: Final Interview). What Alex noted was that: "*When I get mad McCavity runs away and I have to calm down before he comes back to see me. But I like that he comes back to check on me and like when I got real angry at Mary, McCavity didn't stop coming to see me, I just needed to be calm so that he could feel safe to come and be with me"* (Alex: Final Interview).

Alex has seemingly learned that McCavity will come back to her once her rage subsides and this is a relationship feature that she trusts in spite of a pervasive worry that things are going to change.

Psychological Calming

Alex was badly affected by a decision that she was not allowed to have her own mobile phone. Mary explained: "*When we told her she wasn't allowed a phone she was really mad. Out came all the stories of her past and how she was badly treated and this is again really unfair. She reverts back to this all the time, and it comes full circle again into a full rage. We tried to explain that she could use our phone at any time but that she wasn't allowed her own personal phone. Then all the smashing up started. Things down the stairs, into the kitchen to grab whatever she can and throw it. She's a strong girl, and it's pretty scary when it happens. We can only let it run its course and stick to our decision. Eventually she calms down but will go days without talking to me" (Mary: Final Interview).*

Alex described the same event in her diary. She wrote "*it's so unfair. Always bullied. All the others have one. Makes me mad in there"* (Alex: Diary Transcript). Her final interview explained further: "*It's on this side of my head that I feel it [getting mad] and then it gets everywhere. I can't stop it."* She went on from her earlier diary entry to explain McCavity's role in helping her: *"McCavity ain't the same. He helps stop what's going on in there faster and I feel slower again. Love you McCavity."*

Remaining calm when uncertain about a social worker's visit was also aided by McCavity: "*Like I don't know if they [social worker] want me or when they move me, but I like it when he's [McCavity] here. I don't feel as stressed"* (Alex: Final Interview). Equally, when Alex learned that she was going to be in respite care near to Christmastime she became very distressed. She said: "*I'm really scared that they are gonna make me leave here and I don't want to go and live somewhere else. I like it here*

and I don't want to move again. I want to be with McCavity and Mary. This is what happened last time. They put me in respite and then after a while they stopped having me as much and then they [social worker] moved me there all the time before I came here. I'm really scared that's going to happen again. I don't see why I have to go there at all" (Alex: Final Interview). She indicated that McCavity and Mary were the people that made her feel 'slower' again. This is often how Alex describes feeling calm. Feeling slower inside describes the feeling of calm that is easily lost when something happens that she does not like or understand. She had written in her diary: "*McCavity sits on my bed comes to me. He looks after me and I feel special. With him I don't worry as much.*"

Reciprocation & Consistency

A significant moment was when Alex was picked on at school. This spanned several weeks of diary entries, principally describing what had happened. During the interview she explained a little about her feelings: "*I like McCavity more than most people because cos he don't ever say mean things. When I get bullied nobody does anything about it. But I can cuddle McCavity and it feels like someone likes me. And Mary. Cos I reckon I like nearly everybody but they don't like me back. Except Mary as well. She hugs me and tells me she loves. That was weird when I came here. It didn't happen before. I didn't get hugs and nobody told me they loved me. She hugged me when I used to come for tea just before I moved here all the time.*"

Alex and Mary will tell each other they love them regardless of what has happened between them each day. Alex said: "*it's nice cos they like me back*" (Alex: Final Interview) having earlier explained that she often feels let down by others who are not always there for her. Reciprocation within the relationships helps Alex feel calm and the consistency with which she receives affections from Mary and McCavity help her feel stable.

Going away on a camping trip with the foster agency did not worry Alex. She said that she was: "*well nervous about it, but I knew I was coming back to here with them [Mary and McCavity]"* (Alex: Final Interview). Alex was reassured by Mary also telling Alex that she would miss her: *"Alex said she would miss me when she were away, and when I said I'd miss her too she looked at me and asked 'really?!'. I said of course I will you daft one and she looked happy"* (Mary: Final Interview).

Alex's time with Mary and McCavity has seen Alex become more settled and aggressive less often. The outbursts of anger are occurring further apart and her ability to deal with unsettling moments is improving. She is better able to explain when she is angry and takes a little more time to listen and reason with Mary. She is about to embark upon a new start in a supported college environment where she will study life skills. There will be several familiar faces there for Alex and she says that she is "*looking forward to it and making some new friends"* (Alex: Final Interview closing comments).

Case Study 3: Charlie

Charlie is 11 years old. She has been living in foster care since she was removed from her birth parents due to neglect at the age of three. She has lived with seven foster families during that time. Charlie had once-a-month contact meetings with her mother and father although separately. Her parents regularly missed those contact sessions. She is educated in mainstream education in the North West of the UK and is living with a single female foster carer, Sue, and her dog, Storm. Charlie has above average cognitive development, is above average in her academic performances and is generally well behaved. She can exhibit some naughty behaviour but nothing that is severe. She is independent and likes to spend time alone but also appears to socialise well with others, despite not maintaining many close friendships.

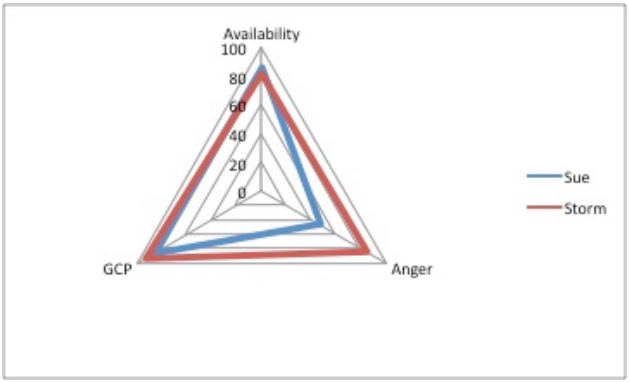
Numerical & Graphical representation of revised-AAQ scores depicting foster carer(s) & animal relationships.

AAQ – Start of Investigation:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Sue	85.967	47.233	85.7
Storm	81.9	84.433	93.067

Mean Ratings of AAQ Scales (Visual Representation)



AAQ – Month 2:

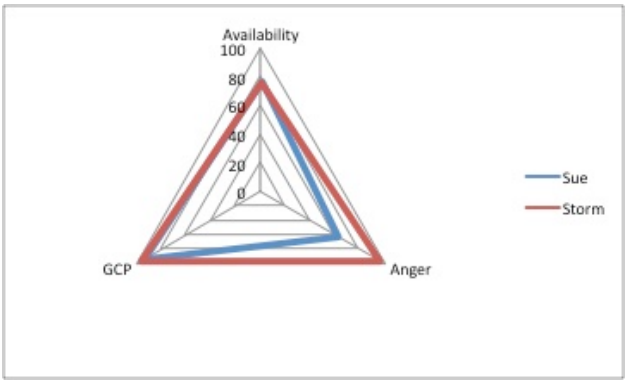
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Sue	76.667	62.267	93.733
Storm	75.95	95.633	96.333

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability: "*I pushed them both down because they've not noticed as much when I am worried I don't think. She hasn't known when I was worried and I don't know if she knows how I feel as much.*"

GCP – Sue: *"I moved Sue that way [up] because when we do stuff together she talks to me about how I am doing. She asks me if I am ok and then we talk about things at school and anything else really. I like helping her cos then we spend time with Storm as well and we play games with her and she isn't doing other jobs"*

AAQ – Month 3:

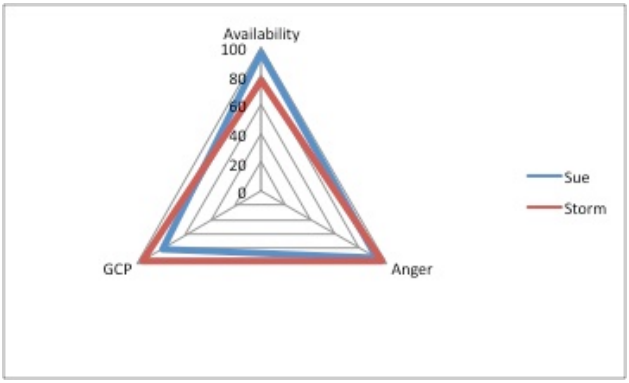
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Sue	96.033	92.167	79.6
Storm	77	96.333	95.733

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

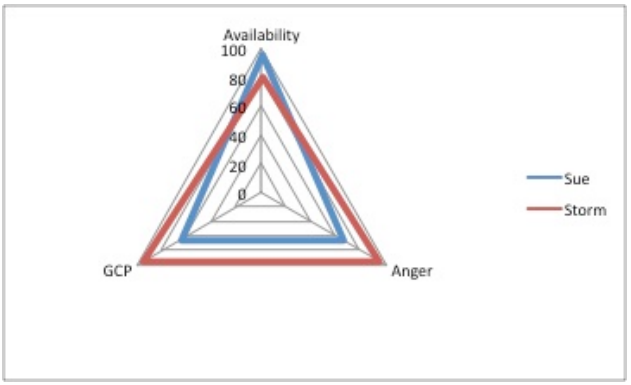
Availability – Sue: *"I moved Sue up cos when I got back from summer camp she was really pleased to see me and I had been missing her. She said she was going to be there to collect me and she came early to watch me at camp. It felt great when she was there and she watched me"*

AAQ – Month 4:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Sue	95.533	65.6	64.467
Storm	80.05	94.067	95.033

Mean Ratings of AAQ Scales (Visual Representation)

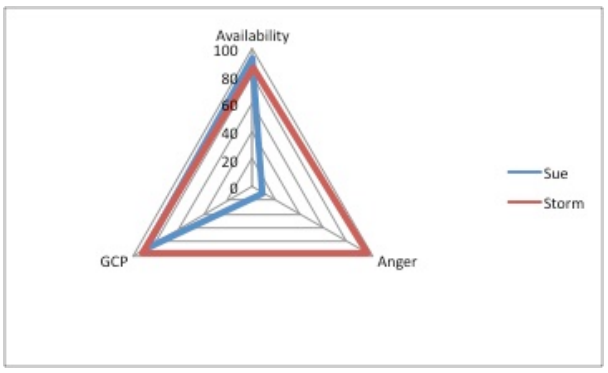


AAQ – Month 5:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Sue	92.9	7.867	89.167
Storm	86.25	95.633	92.267

Mean Ratings of AAQ Scales (Visual Representation)



Movements:

Anger – Sue: *"I moved Sue right down that end of the line [bottom] because she told me I can't see my mum again. I am dead mad about it and she wont let me go and see her at contact any more. I think it's dead cruel and she knows it makes me angry so I put her right down there and now she only gets more angry with me"*

AAQ – End of Investigation:

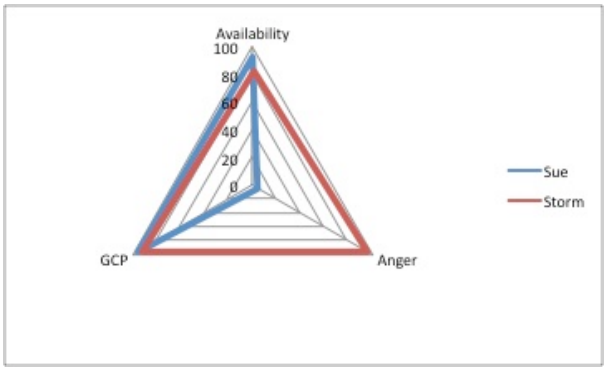
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Sue	92.4	3.867	95.733
Storm	82.35	95.5	92.2

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Anger - Sue: "*I moved her a little bit more cos she still wont let me go and see my Mum.*"

Moments that matter

Starting out

Sue described Charlie as being very shy when she first arrived. She interacted a great deal with Storm and they spent a long time sitting on the floor together and Charlie would not say very much at all. "*She were full of smiles, real sweet smiles, but she wouldn't hardly say anything. She wouldn't ask for help or talk much about anything. It were hard for her though. She's been through a hell of a lot. She used to just sit and hold Storm's head and stare off into space"* (Sue: Final Interview).

Charlie noted that having Storm in the house made it seem like a nice place to be: "*Storm is so nice. She looks for me to make me happy. I smile when I see her. I like it*

when Sue tells me about her when she was a puppy" (Charlie: Diary Notation). Overcoming the unsettling process of moving to a new place had an effect on Charlie, but she found companionship in Storm, giving her a sense of comfort in her new home. "*I think it meant that she wasn't alone. Even at night she had someone, something there with her that made it a little less lonely"* (Sue: Final Interview).

Charlie related her thoughts about watching Sue and Storm during the start of her placement. She said during the interview: "*I liked it when Sue was playing with Storm and they were cuddling on the sofa. It was like she really liked Sue and she looked well happy when they were together. I reckon it made me like Sue more as she looked well friendly"* (Charlie: Final Interview). Equally, Charlie explained how the presence of Storm helped her when starting out in the placement. She said of one of her AAQ adjustments: *"I moved Sue that way [up] because when we do stuff together she talks to me about how I am doing. She asks me if I am ok and then we talk about things at school and anything else really. I like helping her cos then we spend time with Storm as well and we play games with her and she isn't doing other jobs"* (Charlie: Final Interview; about AAQ adjustments).

Dealing with Distress

During Charlie's participation in this research she went through a very upsetting experience where she was no longer taken for her contact sessions with her biological mother. This was due to social services ceasing the meetings in light her biological mother's behaviour. Charlie was understandably very upset and was angry with Sue for not taking her. This sudden increase in felt anger was reflected in the AAQ charts. Charlie wrote: "*Hate it. Hate it. Why can't I see mummy. It's not fair. Sue wont take me any more"* (Charlie: Diary Notation).

Sue corroborated that it was a difficult time for Charlie. She explained that every attempt had been made to keep the contact sessions but that they had been deemed

unsafe for Charlie to attend. When they delivered the news she "*didn't look shocked. She just shrugged her shoulders and kept colouring in. Then she stopped and asked why, but I don't think she was listening. She looked real empty, like her eyes went hollow. And then she went and sat with Storm. She was really angry and I could see her sitting there shaking. She definitely blamed me. She would get upset and come crying to me, and then whenever we tried to talk about it the anger would come back again"* (Sheila: Final Interview).

Charlie also experiences fairly regular bullying at school because she is living in foster care. She finds these moments very upsetting and particularly struggled when she had her contact sessions stopped. She explained: "*..when other people poke fun at me and get in my face and call me names cos Sue ain't my mum that makes me sad, but I don't like them know. I try and walk away but sometimes I do naughty things"* (Charlie: Final Interview). She also noted in her diary: "*Got angry at school with Sarah cos she was picking on me. Sue let me talk about it. School told her about it. Wish she would tell her off."*

Sue was a great aid in Charlie feeling settled in her placement. Sue's consistency enabled Charlie to develop trust in Sue and to learn that what Sue promised was what Sue would deliver. Charlie said: "*You can't trust many people cos they let you down. I don't think Sue does that cos she's always doing what she says she will. Says no a lot, but I don't like it when you say yes but mean no"* (Charlie: Final Interview). As with all the children housed under a particular authority, there is a summer camp organised for children to attend and socialise. Charlie was not looking forward to the time away from Sue, but was excited about seeing some new people. She noted as a reason for feeling better about Sue, that: "*She said she was going to be there to collect me and she came early to watch me at camp. It felt great when she was there and she watched me" (*Revised AAQ Notations). Charlie did ask to call Sue on the first night of the camp but was easily reassured that things would be ok.

Charlie has developed well in this placement with Sue. Her performance at school has improved and she is getting more positive reports home from her teachers. She has managed to build a small number of friendships although she still finds difficulty in trusting them and talking to them about things that are happening in her life. Sue explained that: "*she comes across as a bit of a loner and she can often be the one who stops making contact with her friends. She tells me that she's worried they are going to be mean to her at some point. When she lost contact with her Mum I heard her telling her closest friend that everything was alright, but then in the car on the way home she let it all out"* (Sue: Final Interview).

Charlie has become more comfortable with talking to her carer about her troubles. Charlie experienced a traumatic moment in the middle of the investigation where she lost contact with her birth mother and she was particularly upset about that. She was able to find comfort in her foster home and to work through her sadness by talking to Sue. But that comfort has developed over time, because Charlie recounts from when she moved in with Sue that: "*I liked being with Storm more. She was more easy, like. It was easy to be with her and she was really nice and I liked it that we did stuff together with Sue. But now I like talking to Sue more an' all. Cos she can really help me with my problems more"* (Charlie: Final Interview).

Case Study 4: Jessie

Jessie is ten years old. He was taken into care five years ago having been removed from his birth parents due to neglect. He is educated in mainstream education and has lived with six foster carers and moved through three schools. He has maintained contact with his birth parents although this was seldom met owing to parental failure to arrive at the meetings. Jessie is prone to angry outbursts and destructive behaviours when he is reprimanded or boundaries are enforced. He has no known cognitive delays but he has not learned suitable social behaviours and can be aggressive towards others. He is angered by his birth parents having another child and being able to keep that child but not able to have him at home also. He is overly independent, struggles to ask for help and seeks his own company when others are angry with him or he is upset.

Numerical & Graphical representation of revised-AAQ scores depicting foster carer(s) & animal relationships.

AAQ – Start of Investigation:

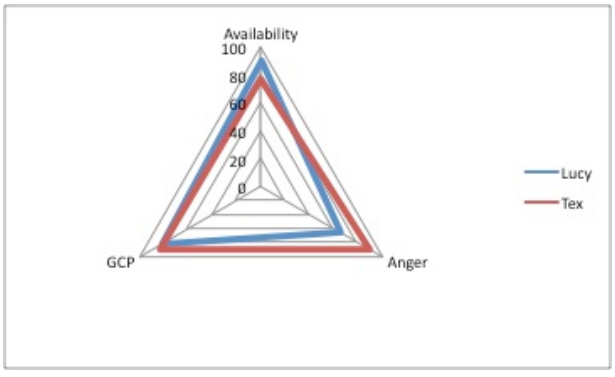
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Lucy	90.133	65.4	81.533
Tex	77.067	89.267	83.2

Mean Ratings of AAQ Scales

(Visual Representation)



AAQ – Month 2:

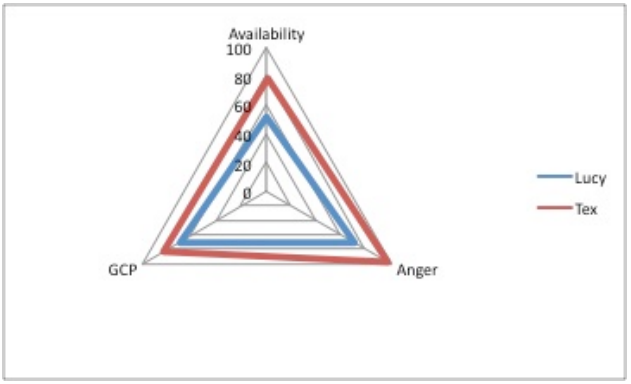
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Lucy	51.9	70.2	69.7
Tex	78.633	96.933	83.067

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability – Lucy: "*"I wanted to move Lucy down a bit cos she sent me away on summer camp and she knew I didn't want to go so much. I think she wanted me out the house so she could do her own stuff without me. But I got on with it and it was fun"*

AAQ – Month 3:

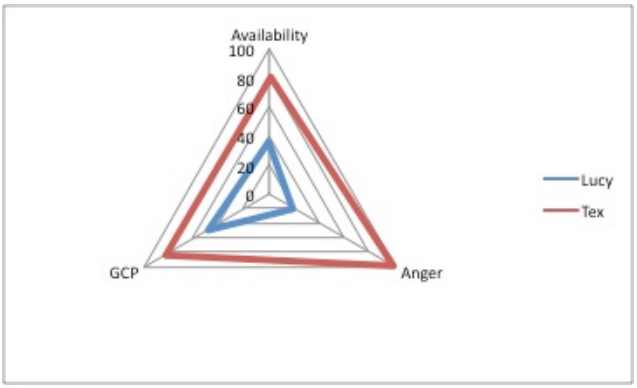
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Lucy	36.067	18.1	48.967
Tex	80.533	97.9	82.7

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability – Tex: *"I moved Tex up the better end of the line a little bit cos she keeps coming to look for me and she is always at the door when I get home. She's the last to*

say goodbye as I go and first to say hello when I am back and when I am here all the time she just waits to check on me"

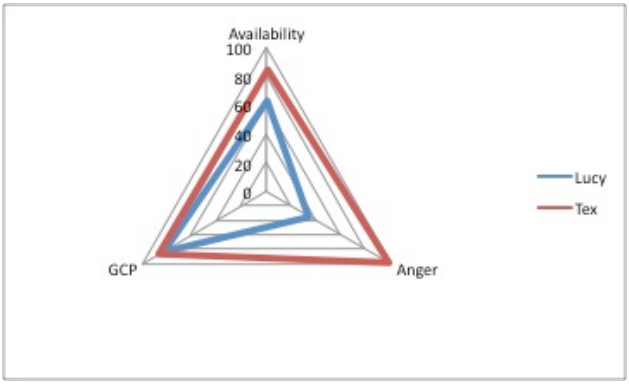
Anger – Lucy: "*I put her down a lot as she told me I can't go to contact any more and it makes me angry and now she only talks to me when she's telling me off for being mad.*"

AAQ – Month 4:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Lucy	63.133	33.333	82.733
Tex	84.6	97.767	86.867

Mean Ratings of AAQ Scales (Visual Representation)

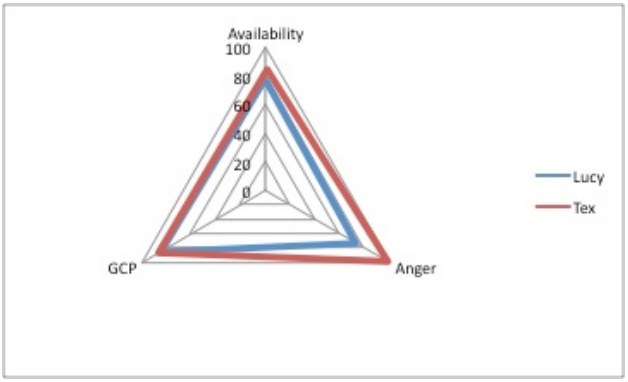


AAQ – Month 5:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Lucy	77.733	72.1	84.8
Tex	84.6	97.933	86.667

Mean Ratings of AAQ Scales (Visual Representation)



Movements:

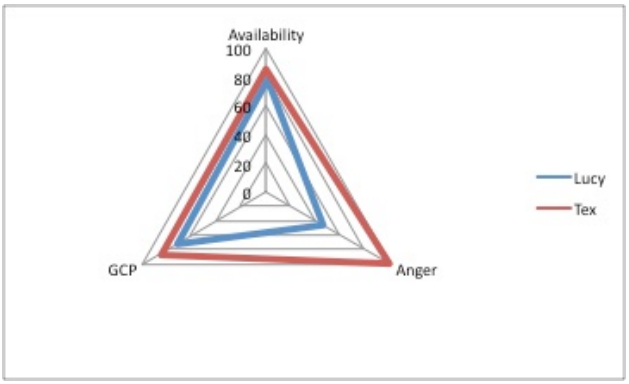
Anger – Lucy: "*She talked to me about why I was angry and I know she's not stopping me and I shouldn't be mad at her. I was wrong to think it was her to blame.*"

AAQ – End of Investigation:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Lucy	78.133	45.433	71.633
Tex	85.533	98.667	84.6

Mean Ratings of AAQ Scales (Visual Representation)



Movements:

GCP – Lucy: *"I moved Lucy that way a bit [down] because for a bit she has been telling me what jobs to do like she got all serious and doesn't do them with me as much. I do 'em cos it helps her out but she is busy thinking of other stuff I reckon"*

Moments that matter

Sharing Experiences

Jessie spends a great amount of time engaged in cooperative activities with Lucy. Together they go to craft sessions at their local hardware store and they regularly go out for meals at a pub where they enjoy ordering each other's meal. They get to spend lots of time together outside of school and Lucy makes every effort for Jessie to have exciting opportunities. She said: "*I don't want him to miss out on anything you know. So if I can give him chances that he wouldn't have then I will. I don't want him sat around and not having experiences just because he's in foster care"* (Lucy: Final Interview).

Jessie also noted that he had a lot of experiences with Lucy. He wrote in his diary "*We always do stuff. It's fun and I like it when we go out. It's funny when we order menus but I don't make it too bad for her as it would be mean"* (Jessie: Diary Notation).

They spend a great deal of time with Tex. Together the three of them go for long walks and they spend a lot of time sat on the sofa talking about things that are happening at school. These shared interactions help Jessie "*feel closer to Lucy than I have with a foster carer before"* (Jessie: Final Interview). But he explained that he finds it very difficult to be close with other people. He elucidated by explaining how he enjoyed the company of Tex because he would not change his mind and send him back to the social worker again. Because of this pervasive worry, Jessie says he finds it difficult to make the most out of all the time he has with Lucy. He says that he is often naughty on purpose. When he is having a good time with Lucy he describes: "*a funny feeling in my tummy. When it happens I can be naughty and I want to get sent to my room because if I get too happy here, then I'll miss it more when they move me. That happened in my first house. I was there and I liked it cos they were real nice and they were real kind, but then after like four or maybe nine weeks they sent me back" (Jessie: Final Interview).*

Thus, sharing experiences with Lucy is something that Jessie enjoys and desires, but he is observant of how much he will allow himself to enjoy those moments. He has a self-limiting control devised as a result of his previous traumas from being unsettled. He says: "*that's why I can be naughty real quick. I do it on purpose cos everyone sends me away. The only person I don't worry about is Tex cos I'd miss him but I know it wouldn't be him that gets rid of me. Because of Tex I am never alone"* (Jessie: Final Interview). Jessie even voiced his concern that Lucy was becoming more busy in recent weeks. He said: "*she [Lucy] got all serious and doesn't do them with me as much. I do 'em [jobs] cos it helps her out but she is busy thinking of other stuff I reckon"* (Jessie: revised AAQ notations).

Assisted self-regulation

During the middle of the investigation, Jessie learned that his mother was due to have another baby. He asked whether that meant he could go home and they could be a proper

family again but his mother said that he had to stay in foster care for the time being. He described feeling very unsettled by it and that he had *"mixed feelings about seeing mummy at contact"* (Jessie: Diary Notation). Lucy was clearly aware of this situation and conveys that Jessie appears rather self-reliant at times like this. "*He does get upset, but he seems to deal with things in his own way, often on his own"* (Lucy: Final Interview).

Jessie explained that this is because "…*when she [Lucy] asks me what's wrong it's hard cos I can't like explain it and stuff. I don't know how to explain what I'm thinking about. That's why I don't really talk to anyone*" (Jessie: Final Interview). He prefers to lay in his room with Tex and just think about things in his head until they make sense to him. He says that Tex really helps him in this way: "*I like to lay with Tex when I am confused and feeling funny"* (Jessie: Diary Notation). "*It's like eye talk – he knows. He can make me feel better really quickly and I laugh when he pushes his nose into my leg, even if I am sad. Like Tex is the only person I will cry in front of"* (Jessie: Final Interview).

By using Tex in this way, Jessie appears to boost his ability to self-regulate during times of distress. Tex helps him to feel safe and more confident in his ability to work through his problems by himself and provides him with authentic company that does not come with the expectation of having to put his feelings into words. He told of one moment during the summer where he was thinking about Tex as a way of making him feel better. He talked about being sent to a summer camp that he really did not want to do. He interpreted it as though: *"she [Lucy] wanted me out the house so she could do her own stuff without me. But I got on with it and it was fun"* (Jessie: revised AAQ notations).

Jessie is now in his most stable placement since entering the foster system. His behaviour, although scattered with occasional naughty outbursts has become much more controlled and he has learned to remove himself from situations where he feels

uncomfortable rather than being naughty. "*This appears to be helping him wean his way deeper and deeper into more intimate conversations because when we talk now he opens up a tiny bit more each time. I've learned that I can't push him and he'll come out with it when he's ready"* (Lucy: Final Interview). He has managed to establish a regular friendship through his local football club and this has helped make his attendance more regular with the two of them sometimes playing together at weekends when they are able to meet up. "*I like him cos he likes to see Tex. And he lets Tex chase the ball about as well. If he likes Tex then I'm ok with it"* (Jessie: Final Interview).

Jessie's school reports are improving and he has been happy to put pictures on his bedroom rather than keeping them in his bag under the bed. "*I hope he's starting to feel like this is home a bit more now. It looks like he's here for a long while so I hope we can really see him feel happy"* (Lucy: Final Interview).

Case Study 5: Jan

Jan is ten years old and lives with a single female foster carer. This is her seventh placement since being taken into care five years ago owing to neglect from her parents. She is educated in mainstream education and has been in a stable school placement since the age of eight. She is prone to aggressive behaviour and occasional violence towards her peers. She is very confident but has difficulty making friends. She tends to become more aggressive when her contact sessions are missed with her parents and is very difficult to console. Her aggression is usually directed at objects rather than people.

Numerical & Graphical representation of revised-AAQ scores depicting foster carer(s) & animal relationships.

AAQ- Start of Investigation:

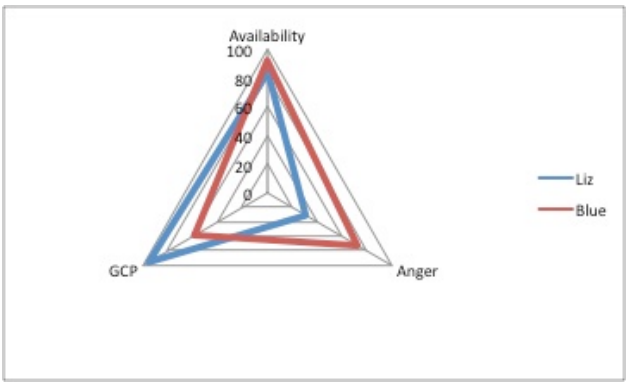
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Liz	84.467	30.7	95.267
Blue	92.2	72.2	58.633

Mean Ratings of AAQ Scales

(Visual Representation)



AAQ – Month 2:

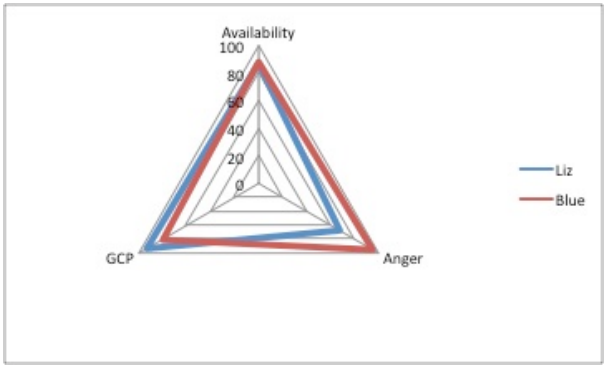
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Liz	87.2	67.667	93.333
Blue	88.033	95.067	79.9

Mean Ratings of AAQ Scales

(Visual Representation)



Movements**:**

Anger – Blue: "*I don't really feel angry about Blue anymore. When I am home he comes and looks for me and now I reckon he does that as he cares about me and not as he wants something, as he rubs me with his head and curls up next to me.*"

GCP – Liz: *"I moved it a bit. Don't know why but I wanted to."*

AAQ – Month 3:

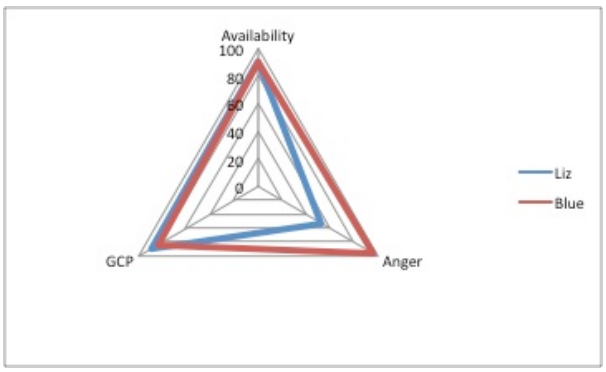
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Liz	90.533	52.5	89.267
Blue	90.2	96.033	83.467

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Anger – Liz: *"Don't know why I feel more angry but I do so I moved her a bit."*

AAQ – Month 4:

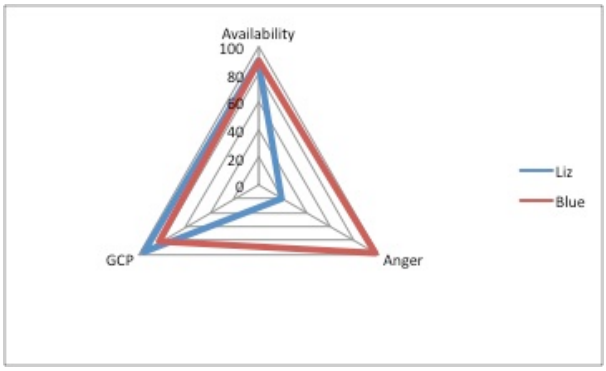
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Liz	90	19.067	95.7
Blue	89.667	97.233	83.033

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Anger – Liz: *"I moved Liz right down when she gets angry with me cos it makes me feel angry too. Like when she told me I couldn't see Mum anymore I thought it was really mean. I've moved her about a lot cos sometimes I feel ok with her, but sometimes I feel real angry. It's not like something happens always but I do feel angry though and I can be angry with her"*

AAQ – Month 5:

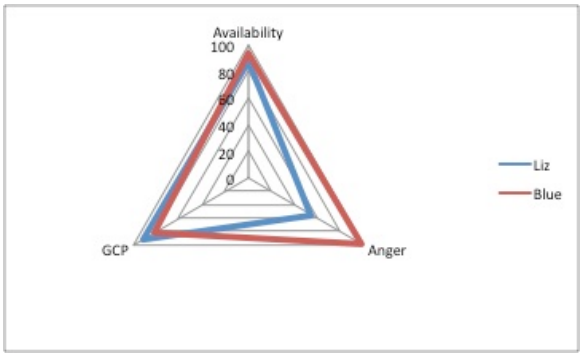
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Liz	87.733	54.167	91.5
Blue	93.767	98.1	81.8

Mean Ratings of AAQ Scales

(Visual Representation)



Availability - Liz: "I moved her back down cos she's sending me to my room when I get angry and not talking to me about it."

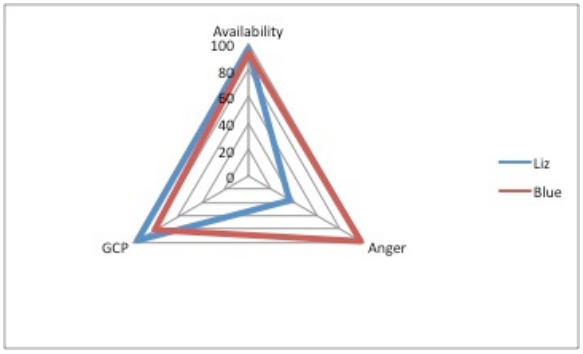
Availability – Blue: *"I moved Blue up then because when I came back from contact I was sad and Liz was too busy with other stuff. I was told Mum had another baby but I can't live with her as well so I was sad. Blue is always there for me all the time but sometimes Liz can be a bit busy"*

AAQ – End of Investigation:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Liz	96.253	35.6	96.433
Blue	92.933	97.467	81.567

Mean Ratings of AAQ Scales (Visual Representation)



Moments that matter

Family Membership

Being treated as part of the family was something Jan described in her diary. After a trip to the zoo with Liz's family she wrote: "*went out like a proper family today. Was amazing. Didn't smile in the photo but I was real happy"* (Jan: Diary Notation). She recalled that everybody was laughing and having fun; that everybody was kind to each other and they were all sharing their things. She said in her interview: "*It was one time when I can remember being real happy."*

Enabling Jan to feel part of the family has been a key motivation of Liz. She explained that she cares so much for Jan that "*I just want her to do well and for as long as they allow her to live with me I want to treat her just like she was my daughter. I think she deserves a break and a stable home and to do all the things my daughters*

would do with me" (Liz: Final Interview). Taking part in the household chores is one of those 'normalities' and although Jan wrote "*always got to do chores"* (Jan: Diary Notation) she later wrote: "*I like it when we do jobs cos then we can talk about stuff together"* (Jan: Diary Notation).

Fear of the Social Worker

Jan has a particular fear of the social worker's presence at the house. She has associated her presence with trouble and change because "*whenever they come here they want to do something like move me to a new place or do a whole load of test things on me. I don't like it and I pretend I'm not here."* When asked what she does when they arrive, she explained: "*I go and hide with Blue and keep as quiet as I can. But Liz blows my cover and tells them that I'm here. I just don't want to leave and I reckon they'll come and take me away one of these days"* (Jan: Final Interview).

Liz talked a little more about Jan's dislike of the social worker. She said that it was less about the social worker as a person and more about what the social worker stood for. She said: *"Jan knows she's not a mean person but every time we mention her name we get a whole load of questions about what she wants, how long she'll be here and is she definitely not going to take her away. I can't imagine what living in that much fear must be like, never truly believing that she'll be staying here"* (Liz: Final Interview).

Spending time with Blue is a common behaviour of Jan's when she is distressed or she has had an aggressive outburst. She finds comfort in lying with Blue and thinking through what she has done before going to talk about things with Liz. She writes in her diary: "*I was bad at school and I got fierce with Chloe because she was being horrible. I pushed her hard and got mad. Thought about what happened and then told Liz because she would know anyway."* Jan often tells Liz about what has been troubling her after she has taken time to think about things herself. If Liz pushes Jan to talk about it before she

is ready then Jan is susceptible to getting angry and turning away from the support of Liz.

Awareness of Authentic Interactions

Ensuring that relationships are authentic is of great importance to Jan. She forms ideas about whether relationships are false or whether the other person is being genuine. She explained: "*I don't know why people bother pretending. If they don't want to talk to me then don't pretend to care about me. If I'm sad Blue follows me round… I like getting back [from school] and being with her if people have…said mean things. I feel much better when I am with Blue"* (Jan: Diary Entry).

Further to this point, Liz added that: "*It's so important with Jan that when you do something with her you've got all your attention on her. If you try and do something else at the same time she's had enough. She's only interested in full attention"* (Liz: Final Interview).

This concept inspired a comment from Jan about her contact sessions with her mother. She attended contact sessions each week but they were stopped mid-way through her participation in the investigation. She reflected her frustration as felt anger towards Liz, but also explained in her interview that she was not "*too bothered because Mum don't always seem that interested in seeing me, if she turns up. So I was sad and I cried but I would rather be with Liz because she is properly interested in me"* (Jan: Final Interview).

Jan is now better able to talk about her feelings rather than resorting to angry outbursts. Missed contact with her biological mother had led to aggressive outbursts in the day that followed but she is now quicker to talk about her anger with Liz than she had been previously. Jan still finds it difficult to maintain friendships as a result of her outbursts and she is very defensive when others are asking about her living situation.

Unfortunately these outbursts have continued to cause problems at school. Jan explained that: "*I only get mad cos they pick on me for not living with my real mum. They tell me she didn't want me and so I get fierce and I fight them"* (Jan: Final Interview). Jan wrote in her diary late in the investigation that "*even if I could go back to mum I want to stay here. Liz is dead nice and I don't want to leave ever"* (Jan: Diary Notation).

Case Study 6: Dana

Dana is eleven years old and living with a single, female foster carer. He is educated in mainstream education and has been in the foster system since the age of seven when he was placed in emergency care following the death of his biological mother in a car accident. Little is known about his life before he entered care. He has lived with eight carers in that time. He has limited social competence and was described as severely introverted when he first arrived in care. Since being in this placement he has advanced academically and has been able to maintain one close peer relationship.

Numerical & Graphical representation of revised-AAQ scores depicting foster carer(s) & animal relationships.

AAQ - Start of Investigation:

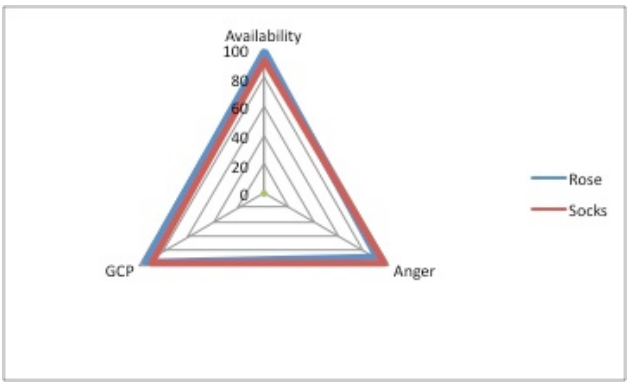
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Rose	99.067	90.4	95.267
Socks	92.233	96.533	90.3

Mean Ratings of AAQ Scales

(Visual Representation)



AAQ – Month 2:

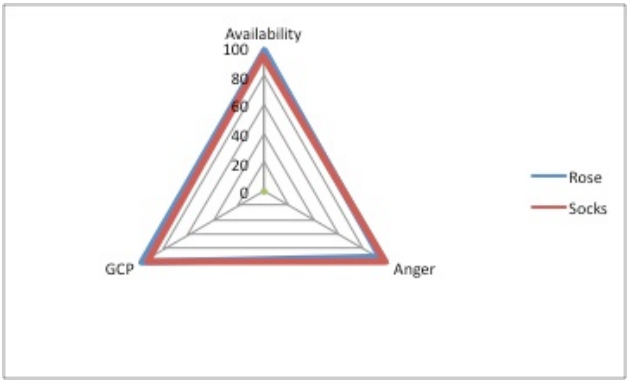
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Rose	97.867	93.033	97.933
Socks	94.033	97.2	93.467

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability: *"I moved her down a little bit but I don't know why. I don't have a reason but I feel I want to move it a bit as I feel something. But I moved Socks up because she has spent a lot of time with me and has been looking out for me."*

AAQ – Month 3:

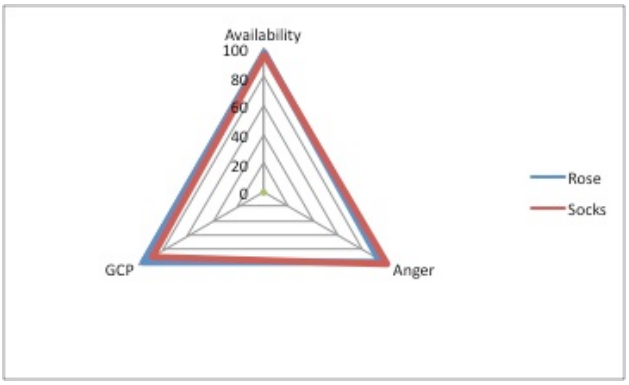
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Rose	96.967	93.733	96.567
Socks	95.533	99.167	89.467

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

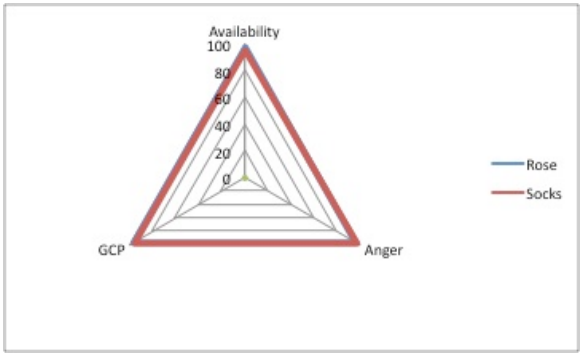
Anger – Rose: "*I moved rose a bit because I feel settled here and I don't worry as much. I am calm because of her and I don't get as angry inside.*"

AAQ – Month 4:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Rose	97.633	96.1	96.667
Socks	95.433	97.5	95.7

Mean Ratings of AAQ Scales (Visual Representation)



Movements:

Availability: *"I keep moving Rose and Socks along the line in little bits cos I keep feeling happier here and I think they like having me. I like them more each time cos we always spend time together and do things together. They both want to spend time with me but I put Rose just a tiny bit more cos she asks me stuff and Socks can't do that."*

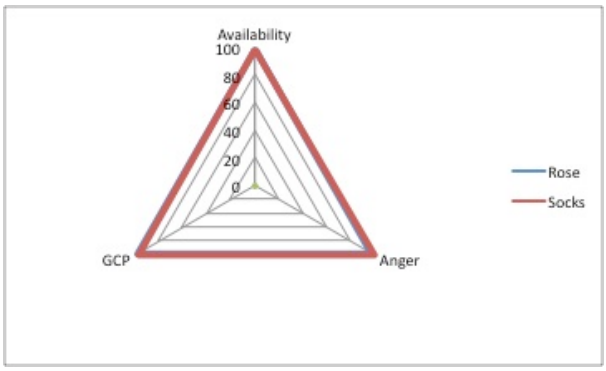
GCP – Socks: *"I really like helping Socks with things that she can't do herself."*

AAQ – End of Investigation:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Rose	98.933	96.933	97.8
Socks	98.633	99.733	96.933

Mean Ratings of AAQ Scales (Visual Representation)



Movements:

Availability – Rose: *"I moved Rose further on the good side because when we were away on holiday I felt like I was away with a real mum. I moved them both along because I just feel like I am really close with them and they want me around."*

Moments that matter

Dana took to his foster placement with Rose extremely well. He settled in quickly despite initial reservations about how kind Rose was. He explained that everyone seems nice at first and that he was worried that she would soon revert back to how he expected most people to be. Along with Socks, Rose's dog, Dana has developed a close relationship with Jamie, a boy who lives nearby. Together they spend a lot of time playing in the local park playing and talking with each other. They regularly share evening dinners at each other's house and take a lot of care over walking Socks in the nearby fields.

Family Membership

To Dana there is much angst about being noticed as different. He refers to himself as being weird to describe his living situation of not being with his mother or father. He says that: "*when they find out [at school] that I am weird because I don't live with my Mum they can get real mean. They can be horrible. I get this feeling inside my stomach, like a mixing machine, and then my eyes feel funny like the edges of the room are turning and I can only see what's in front of me. It makes me scared and I think someone is going to drag me away and make me move again and again…when they make fun of me I want to run away"* (Dana: Final Interview). In his diary he writes: *"I like that it feels like I'm meant to be here"* (Dana: Diary Notes).

Participation in authentic family engagements means a lot to Dana. Following his summer holiday trip to the beach with Rose, Dana wrote in his diary that it "*felt like I was on holiday with a proper Mum."* Dana takes part in a lot of activities with Rose and Socks. They are regular walkers in the fields and spend a lot of time playing games that incorporate Socks. The three of them can spend hours outside and use these moments as a chance to talk about any issues that Dana is having. Very often they play in the nearby

river and build dams to block up the water. Rose uses this as a chance to talk about feelings and how good it can feel when they are let out. One time when they were playing in the river and Rose was aware that something was on his mind, she left Dana to be with Socks. She could hear Dana talking to Socks about something but didn't interrupt as Socks was behaving in a way that suggested Dana was sad. Rose regularly mentions that "*Socks is so sharp and can pick up on sadness. Whenever he senses it he'll be so gentle towards to you. He just stands really close and holds the most amazing, accepting eye contact"* (Rose: Final Interview). Dana refers to this moment in his diary. He writes: "*I sat by the river and told Socks things I could remember about my life before living with him and Rose. It felt good to talk about it with someone."*

Being accepted into a family is something that Dana has historically doubted. He mentioned during his final interview that he had been told off at school for talking and that it had made him angry. He expressed that anger at home and although it also made Rose cross, he was "*confused why Rose was still being nice to me even though I wasn't being nice to her"* (Dana: Final Interview).

Dana writes in his diary about a particularly important moment in his placement. When he and Socks were playing in the river, Rose asked to take a photograph of them. She later got it developed and hung it on the wall in her living room. This act meant a lot to Dana. He noted that: *"She put the photo of me and Socks on the wall. It feels weird but nice. I keep looking at it when I am on the sofa."* Increasing his sense of belonging had a big impact in reducing his pervasive concerns about placement moves.

Exploring new Experiences

A common theme in Dana's placement is the exploration of new experiences. Rose believes it is good for Dana to have lots of positive experiences and to learn from these as he becomes increasingly independent. The three of them spend a great deal of time cycling to new places, regardless of the weather, going swimming together or taking day

trips at weekends. Around the house they often play games, watch films or bake cakes together and talk about their memories and thoughts all the time. "*When he first arrived he was very shy and seemed very quiet. He censored his behaviour with Socks for a while until I overly demonstrated my willingness to talk to Socks and to find comfort in physical contact with him. He soon opened up as we took on more experiences and he's become far more confident"* (Rose: Final Interview).

The new experiences also brought about one occasion where Rose's commitment was sought. Whilst on a cub camp Dana was unsettled by the absence of Rose and Socks but was allowed to call home on the telephone. By talking to Rose and hearing Socks there with her, Dana was soothed sufficiently and reassured that he would return home the next day, that he could continue with his camping trip.

Similarly, Dana benefitted from attending a sports camp where he met several new people. He had been reluctant to attend for fear of being thought weird. He required gradual persuasion from Rose but agreed to attend, comforted by Rose's promise that she would be there to watch.

Feeling Protected

Dana recalls one moment during this research where he felt particularly protected. He was walking Socks in the fields when another dog ran over and was aggressive toward him and Socks. He felt scared and panicked. Socks fought back and chased the other dog away but was injured in the process of defending Dana. Dana described that incident: "*Socks was protecting me from the other dog and he wouldn't let him hurt me. Socks is really gentle but when he needed to be strong he protected me"* (Dana: Final Interview). This provided a platform on which Rose and Dana were able to talk about aggression and how it makes Dana feel. "*It provided us with a mini therapy session where Dana told me about some of his experiences for the first time"* (Rose: Final Interview).

In addition to feeling physically protected, Dana discusses emotional protection from Socks and Rose. He says that when he feels sad or worried he can turn to either of them and they can help him feel more relaxed, helping him to work through the problem that is upsetting him. Dana does not feel completely safe, however. There remains an element of doubt about the longevity of his placement with Rose. He describes an uncertainty when the social worker attends Rose's house because "*when the social worker is here Rose isn't the same"* (Dana: Diary Notes). He explained this further in his interview by saying "*I really, really like it here and I think Rose wants me to stay, but if the social worker takes me away I don't think Rose can stop it. So I worry about whether I can stay here. I don't want to move again and start again somewhere else. It wont be the same as here"* (Dana: Final Interview). On the whole, Dana feels very safe with Rose and Socks and that his placement is somewhere he feels secure, despite the ongoing concerns predicated on his inconsistent placement history.

Case Study 7: Robin

Robin is 10 years old and lives in foster care with a single female carer, Trudi. He first entered the foster system when he was six years old after being removed from his mother's care. Robin has suffered from chronic anxiety having been moved around so often. For the first several months into this placement he would regularly rush upstairs to check that his belongings were still in the bedroom and not packed ready for him to leave. It took several months before this behaviour stopped. He is a very quiet and reserved boy who prefers the company of his carer and the animal to other social interactions with peers.

Numerical & Graphical representation of revised-AAQ scores depicting foster carer(s) & animal relationships.

AAQ – Start of Investigation:

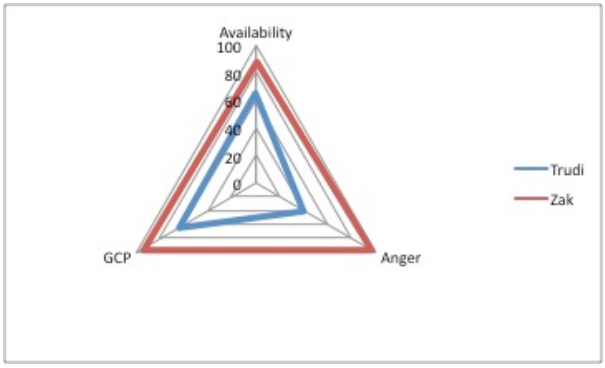
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Trudi	65.3	39.567	64.3
Zak	88.033	96.5	93.9

Mean Ratings of AAQ Scales

(Visual Representation)



AAQ – Month 2:

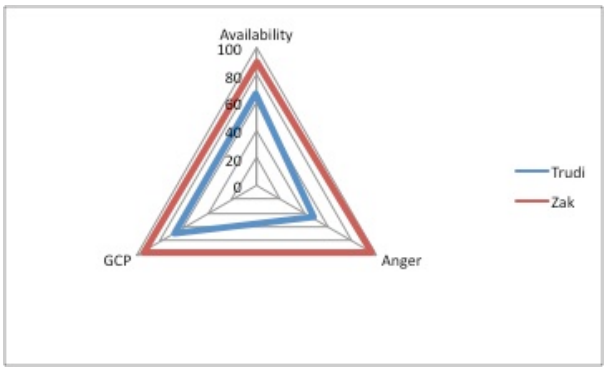
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Trudi	66.667	47.633	68.433
Zak	89.533	96.033	93.967

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

"*I moved the marks because I know I feel different a bit, but I can't say why I do. So I can't write a reason.*"

AAQ – Month 3:

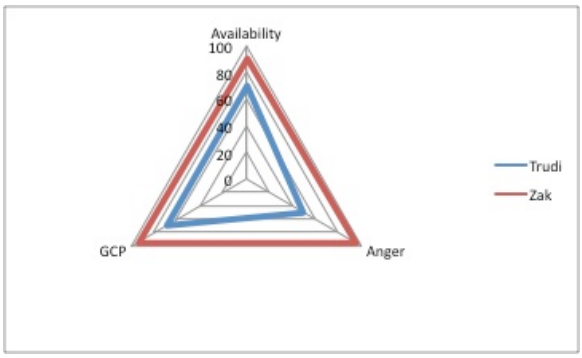
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Trudi	70.167	49.367	69.033
Zak	90.5	95.2	93.533

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability – Trudi: *"I moved Trudi up because of parent-teacher evening at school. Everybody thought she was my mum and it felt good when she was asking lots of questions about me. She smiled and said she was proud of me cos I was doing well at school"*

AAQ – Month 4:

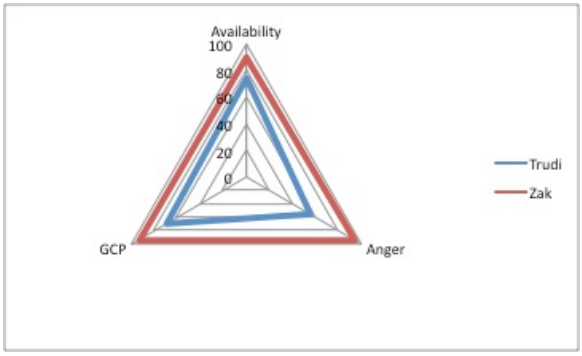
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Trudi	74.433	55.667	69.267
Zak	90.033	94.233	92.933

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Anger – Trudi: "*I am moving this up because I feel much more calm and she pays attention with me and I don't get funny*."

AAQ – End of Investigation:

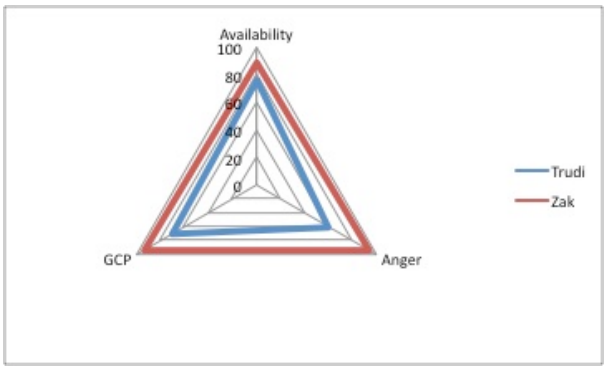
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Trudi	76.233	59.867	70.3
Zak	88.967	93.967	93.5

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Anger – Trudi: "*I moved Trudi along the line there because she is very kind to me and looks after me. I don't feel as angry any more, or when I do I think I know a little bit*

why. Trudi doesn't make me talk if I don't want to and she doesn't ask me lots and lots of questions so I don't get as annoyed. And because she helps me a lot I like her"

Moments that matter

Highlighting Stability

Trust in placement stability is a key concern for Robin. He describes in his diary that he is concerned about how easily people can change their minds and either be mean to him or send him back to live somewhere else. Trudi helped lessen these worries by asking Robin to help decorate his room as he wanted it to be, helping him to perceive that he would be there for a long period of time. Robin wrote: "*I like painting the house and also making the plates and mugs because I can spend time with Trudi" (*Robin: Diary Notes). Although he may not have assigned the same meaning to the activity, Robin described it during his interview as one of many fun activities: "*Trudi always thinks of something fun for us to do. We do a lot together and I like it. It makes me feel happy being here and we do a lot together"* (Robin: Final Interview).

Robin required some concerted efforts to help him realise his stability with Trudi. The early months of this placement saw him regularly rushing upstairs to make sure that his bags had not been packed so that he was ready to leave. He was overly anxious that he would be moving on at a moment's notice and that angst interfered with his daily functioning. It upset him greatly and took several months to tone this behaviour down.

Realising Relationships

Perhaps the most significant moment in Robin's perception of Trudi was at Parent-Teacher evening at his school. This provided an opportunity for Trudi to show a genuine interest in Robin's welfare and educational development by speaking to each of his teachers and showcasing authentic interest and support in what he was doing. Robin

said: "*It was a strange evening and I was worried about it, but when it was happening it felt really good. I liked it that she was asking so much about me"* (Robin: Final Interview). He went on to say: "*It was the first time someone had told me they were proud of me."*

Noticing Trudi as a maternal figure was realised through observing her care for Zak. Although Robin was often involved in the personal care of trimming Zak's ear hair or taking her for a walk, Robin enjoyed watching Trudi as she cared for her. He wrote in his diary: "*I like watching Trudi look after Zak. It makes me feel calm. She talks with a slow voice and Zak moves really slowly. They are really happy."* Being able to perceive Trudi as a caring figure was important in Robin's development here. He recalls many moments where she has cared for him and soothed him, such as when he fell of his bike, or when he was called names at school, and when he was really very anxious about going away on a summer camp. He recounted the sensitive care that Trudi provided.

Upon the commencement of the placement, Robin was acutely attentive to the interactions between Trudi and Zak. He observed very closely how they interacted and decided it denoted that: "*Trudi was a nice person who wasn't being fake. She took real good care of Zak all the time and never got angry or fed up. She was really nice to him and always made sure that she was ok"* (Robin: Final Interview).

He alludes to Zak as facilitating his relationship with Trudi. In his diary he writes: "*I like Zak so much. She is really nice and wants to spend time with me. I think I was wrong about Trudi because she seems nice too. Zak must love her and she wouldn't do that if Trudi wasn't really nice"* (Robin: Diary Notes).

Robin appears to have formed a very close bond with Trudi and Zak. He describes how together they form his preferred company and he would rather to do activities with them rather than attempt to socialise. Trudi has concerns about his lack of socialisation and

thinks it will be important for him to practice interacting more with peers once he is feeling more confident in his abilities.

Fortunately for Robin there have seldom been distressing moments during this investigation. He recalls an ongoing feeling of anxiety caused by a worry that he will have to move home again but this has reduced during the course of his time here. Trudi and Zak appear to provide an effective anxiolytic effect by attending to his emotions and providing him with a consistent environment in which he is starting to feel very settled.

Case Study 8: Ash

Ash is eleven years old and living in foster care with a heterosexual couple, Gilly and Rich. She has been in foster care for six years following her removal from her mother's care due to abuse and neglect and has experienced nine placements moves. She is educated in mainstream education but receives animal therapy through a local farm. Ash can be very clingy with Gilly and has been known to behave similarly within close friendships that she is eager to establish. However she struggles to maintain friendships for any length of time, feeling easily let down by people. When in the same areas as her carers, Ash likes to know where everybody is and repeatedly checks on people who are busy or otherwise engaged. She does still have supervised contact with her mother but her mother seldom shows up to arranged meetings.

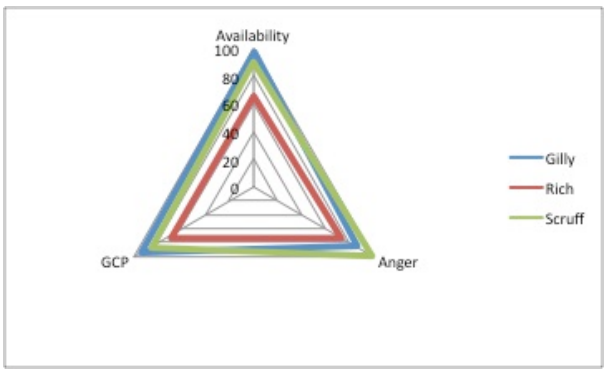
Numerical & Graphical representation of revised-AAQ scores depicting foster carer(s) & animal relationships.

AAQ – Start of Investigation:

Mean Ratings of AAQ Scales (Numerical)

	Availability	Anger	GCP
Gilly	97.767	86.367	93.767
Rich	65.833	73.033	68.8
Scruff	90.3	98.733	85.167

Mean Ratings of AAQ Scales (Visual Representation)



AAQ – Month 2:

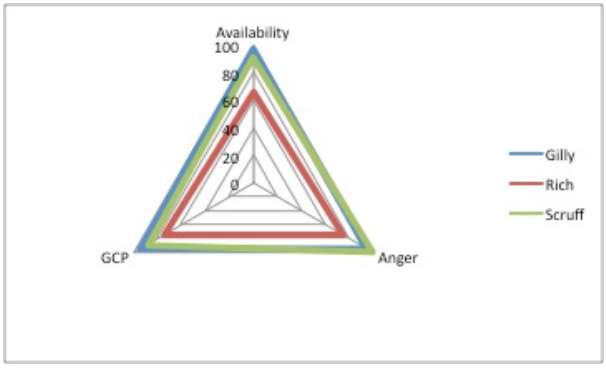
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Gilly	97.433	93.9	94.633
Rich	66.167	74.5	74.5
Scruff	91.2	99.233	87.933

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

GCP – Rich: *"I moved Bruce up again cos we get on better when we do things now and I like helping him. We talk a lot when we're doing things and he even tells me about what he has been doing which is nice. He tells funny stories and he always says 'how's things for you?' when we're doing stuff together."*

AAQ – Month 3:

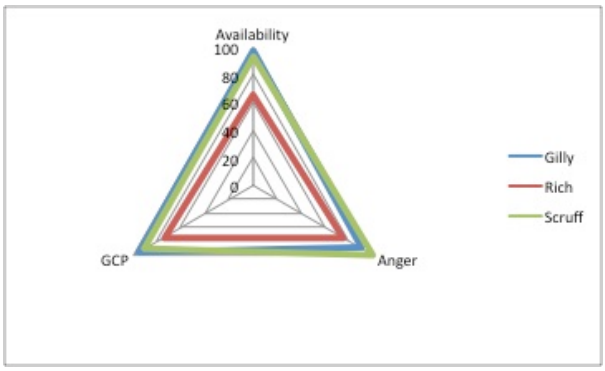
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Gilly	97.867	90.3	95.8
Rich	65.9	75.067	74.033
Scruff	93.433	99.867	91.1

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Availability: *"I moved Rich up cos he was real nice to me when my Mum didn't turn up at contact again. He knows it upsets me and now I think he gets sad when I am sad and he tries to make it better. It's like he makes more time for me now and I like that he does it."*

Availability: *"I moved Gilly and Scruff up cos when people at school were being mean they seemed to really care that I was upset and wanted to spend time with me. Rich wanted to help by talking to them but I liked that Gilly just hugged me and helped me talk about it."*

AAQ – Month 4:

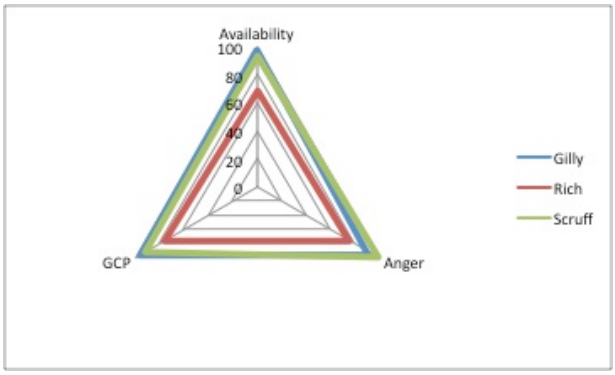
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Gilly	98	91.1	96.267
Rich	68.833	75.367	76.267
Scruff	93.567	99.367	92.167

Mean Ratings of AAQ Scales

(Visual Representation)



AAQ – End of Investigation:

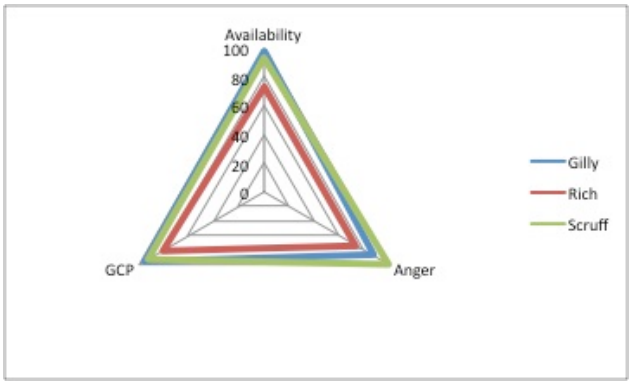
Mean Ratings of AAQ Scales

(Numerical)

	Availability	Anger	GCP
Gilly	98.2	87.7	95.7
Rich	73.333	73.2	81.1
Scruff	93.4	99.667	92.867

Mean Ratings of AAQ Scales

(Visual Representation)



Movements:

Anger – Rich: *"I didn't move him much but sometimes he gives me a glare to tell me off or if I say something a bit bad he can look a bit angry. I don't like it. Gilly doesn't get*

angry with me when she tells me why I should not do stuff or say things, she talks to me about it but sometimes I feel Rich is angry and that makes me angry."

Moments that matter

Contact Sessions

A central feature of her placement is difficulty associated with contact sessions with her mum. Ash is allocated a contact session with her biological mother every two weeks. Unfortunately her mother seldom appears at these meetings and this causes Ash to become very upset. Ash suggested: "*She doesn't really care and never seems interested anyway. Just watches the clock until she can go again"* (Ash: Diary Notes). However, although Ash does question whether she enjoys going to her contact sessions an absence on her mother's part still causes distress and makes Ash feel in very low spirits. On one occasion when her mother didn't arrive, Ash waited patiently on her own until it was past the time that her mother was allowed to arrive. She asked to go for a walk just with Gilly so that she could talk about her feeling angry and upset.

There are very few people to whom Ash feels comfortable talking. She does not talk to people at school and Gilly doubts that she maintains many friendships through fear of their dissolution. Rich provides a degree of accessible contact for talking through issues, although Ash says that "*sometimes he can talk a bit too much and he doesn't get me like Gilly does"* (Ash: Final Interview). She tends to seek one-to-one talks with others as "*it is easier to think about what's going on when there's not so much talking all at once"* (Ash: Final Interview).

Acceptance

Simply feeling accepted for who she is has helped Ash to settle into her placement. Unbeknown to Ash, she attends a therapy farm where she interacts with the animals and talks about her thoughts and emotions with Gilly and the farmer present. Gilly explained in her interview how "*Ash came with a low sense of self esteem and often seemed to feel ashamed of herself for not being able to find a stable place to live. She didn't give many*

a chance at first mind you, but we decided it was important that she felt accepted, warts and all."

Ash explained how Scruff helped her feel that it was ok to feel sad. Rather than suppressing the desire to cry, Ash writes in her diary: "*Scruff helps me cry when I am sad. I can cry and I don't feel silly."* Learning that it is ok to be however she is feeling and to have that accepted by those around her meant that Ash started to open up about more of her concerns and troubles. She became more aware of her behaviours and started recording more in her diary about how she thought Gilly and Rich liked having her there.

One such moment that mattered to Ash was when Gilly was writing a birthday card. She signed it Gilly, Rich and Ash. Ash noticed and wrote in her diary: "*she actually wrote my name next to hers and Rich like we're a real family. Feels nice in a weird way."*

Ash has lost her early placement nerves and appears to have found a place with Gilly and Rich that enables her to explore her troubled past whilst feeling increasingly settled in her new placement. Gilly suggests that it would be good for her to have a few more friends and not to rely on her and Rich for all her emotional support. Ash's small circle of confidants is not surprising in light of her early years experiences.

Perhaps the biggest past time that Ash has is observing other people. *"Whenever there are people playing in the meadows she will race up to the tree in the corner and sit there with Scruff, both sat on top of each other, just watching what the other people and families are getting up to. She just sits and stares and you can see her thinking about something" (*Gilly: Final Interview). "*I feel really good here and I'd be happy to stay here until I can buy my own house" (*Ash: Diary Notes).

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Identification of Changing Relationship Perceptions

Critical to understanding these data presentations is the notable change in shape of the radar graphs. Expansion of the graphs' triangular depiction denotes enhancements in the relationships, indicative of more secure perceptions of the considered figure of attachment. Conversely, a reduction in the size of the radar graph portrays a changing-negative perception of the felt security with the considered other. Results clearly demonstrate change over time (see Appendix One for full revised AAQ results), although it must be noted that stable ratings may also be considered a positive result, as children in foster care can have greater difficulty developing positive new relationships (Schofield & Beek, 2010).

The revised-AAQ (West et al, 1998) data shows that aspects of relationships were enhanced during the course of the investigation. That the children were able to consider their relationships against the scales of the AAQ suggests the children had formed relationships that at least resembled attachment relationships. Further to this, children's relationship perceptions developed in security during the course of the investigation suggesting that attachment security can develop with both carers and animals within foster care. Expansion of the revised-AAQ radar graph would suggest that in time felt-security towards the specified people increased, but slower than the felt-security within the human-animal dyad.

Such relationship specificity is consistent with the notion that "working models of attachments are organized hierarchically rather than being homogenous across all relationships and all kinds of relationships" (Zilcha-Mano et al, 2012 p.9). Such suggestion of change over time (both of developing security and insecurity) is further evidence for understanding the influence of specific within-relationship working models (Klohnen, Weller, Luo & Choe, 2005), particularly with cognisance of their inter-relatedness.

While it is both useful and insightful to demonstrate how attachment relationship perceptions develop over time, it is useful when managing children's placements in foster care to understand the functions that underlie those representational changes. Such understandings speak to previous research (see Smolkovic, 2012; Unrau, 2008) that called for methods to explicate reasons for representational change. Accordingly, qualitative explanation is now provided that offers explanation for *why* such revisions were recorded through the AAQ measure.

Contextualising Reasons for Scale Adjustments

In addition to the numerical analyses of the children's longitudinal revised-AAQ assessments are the qualitative explanations that moderate the adjustment of ratings over time. Presented here are a selection of the verbal reports that offer explanation for why children updated their relationship ratings. Such information offers important insights to the events that were precursors for changing relational attitudes and offers vital considerations for understanding the relational perceptions specific to each child. Engaging a child during the assessment in this way elicits a comprehension of their relational climates that helps researchers, social workers and foster carers understand the nuances of each situation (Greig et al, 2007).

Schofield & Beek's (2009) model of secure-base parenting explicates the significance of the secure base as the central tenet of attachment theory. Supporting Bowlby's (1969) assertions that early trust in the availability of the caregiver gives way to the changing balance of dependency and autonomy with maturity, they state that caregiver availability continues to be significant for an individual's security and resilience in the face of new challenges. This continuing perception of caregiver availability is particularly important in cases where individuals have lacked trust in their earlier relationships and resulting from negative care experiences have developed insecure working models of the self and of others. Detailed below are excerpts from the

children that illuminate their measurement alterations and may be used as direct support alongside Van Ryzin, Mills, Kelban, Vars & Chamberlain's (2011) research for understanding children's perceptions of relational change during transitions and foster care.

Movement on the Availability Scale

Sam highlights the intersection of *Availability* and *Family Membership* roles (Schofield & Beek, 2009) explaining that: *"I moved Bruce because I feel closer with Bruce now and he does a lot more with me. Sheila and dog are always there for me you know so I feel much the same about them really, but I feel like Bruce is better…but he's not quite the same…It's easier to talk to Sheila"* (Sam: revised AAQ notations). Schofield & Beek (2009) suggest that involvement with family members and explicit commitment are critical elements of care giving that instil faith in carer availability. Accordingly, this excerpt highlights the child's interpretation of engagement with her carer, demonstrating why relationship partners are perceived differently. Explicit commitment, both verbally and behaviourally, has previously been outlined as fundamental requirements for creating more secure attachment representations (Lee, 2012).

Similarly, Alex highlighted the significance of the carer's availability, particularly at times of intense distress. However, this refers to a negative appraisal of the availability: *"I moved Mary down a lot cos when I got mad and was smashing things she said she would call the police and get them to take me away unless I stopped which made me feel really upset."* (Alex: revised AAQ notations). The use of an abandoning threat was damaging to Alex's perception of commitment from Mary and impacted upon her perception of availability. Indeed, Alex became heavily focused on the longevity of her placement following this comment from her carer. As part of her final interview she expressed deep concern that she would have to leave Mary and "*start all over again with some new people like always before" (Alex: Final Interview).*

Secure-base parenting has indicated the need to foster developing autonomy within youth in care, but mindful of perceptions of continuity. "Offering secure base availability requires carers to promote appropriate autonomy while simultaneously providing a safe haven and an ongoing sense of relatedness (Schofield & Beek, 2009, p.260). This was evident in the relationship of Charlie and Sue; Charlie explained how they reflected elevated feelings of availability as a result of the Sue's behaviour: *"I moved Sue up cos when I got back from summer camp she was really pleased to see me and I had been missing her. She said she was going to be there to collect me and she came early to watch me at camp. It felt great when she was there and she watched me"* (Charlie: revised AAQ notations). Such commitment to Charlie was instrumental in evoking more secure expectations about the Sue's engagement with the relationship, affording the Charlie opportunities to explore, safe in the knowledge of their safe-haven. Schofield (2003) and Schofield and Beek (2009) suggest that children in care are likely to seek out such comfort until a later age than children who have experienced secure relationships from early years and accordingly, foster carers must be cognisant of potential delays in emotional development in order to support the fostered children in a sensitive manner (Lee, 2012).

Consequently, it is important to understand the nuances of each child's history and their perceptions of the care offered. This is because similar events may be perceived very differently in light of previous and existing relationship working models. As Charlie enjoyed embarking upon summer camp, reassured by a confidence their carer would be available thereafter, Jessie experienced a summer camp differently: *"I wanted to move Lucy down a bit cos she sent me away on summer camp and she knew I didn't wanna go so much. I think she wanted me out the house so she could do her own stuff without me. But I got on with it and it was fun"* (Jessie: revised AAQ notations). Although Jessie suggests he was able to enjoy his camp, his interpretation suggests a lack of security in the perception of the Lucy's intentions. Unpicking experiences in this

manner offers essential information for carers to maximise the development of relationship security, and speaks directly to the concluding thoughts of Hoffman et al (2006) where it was stated that intervention and care plans ought to be mindful of each child's idiosyncrasies rather than attempt to apply a generic programme for development.

Unlike the felt rejection from the carer, reflected in the AAQ ratings is the influence of animal interaction. Owing to seeking behaviours on the part of the animal, Jessie elevated their ratings of the animal relationship: *"I moved Tex up the better end of the line a little bit cos she keeps coming to look for me and she is always at the door when I get home. She's the last to say goodbye as I go and first to say hello when I am back and when I am here all the time she just waits to check on me"* (Jessie: revised AAQ notations). The immediate availability of an animal, as demonstrated here, is important in enhancing the relationship perceptions of the children. Parish-Plass (2008) and Noonan (2008) both highlighted the immediacy of the availability as important for soothing, a characteristic identified as essential for emotional regulation. Later, Sable (2012) cemented those ideas about the immediacy of animals as soothing figures of attachment, citing neuroscience research that found animal presence impacted upon humans in a way that diminished feelings of stress and elicited feelings of pleasure (Olmert, 2009).

Accordingly, these findings offer support to those earlier reports, indicating that immediate animal availability may facilitate feelings of security more accessibly than in human-human relationships that are complicated by other day-to-day demands (Beck & Madresh, 2008). The following excerpt elucidates these ideas: *"I moved Blue up then because when I came back from contact I was sad and Liz was too busy with other stuff. I was told Mum had another baby but I can't live with her as well so I was sad. Blue is always there for me all the time but sometimes Liz can be a bit busy" (Jan: revised AAQ notations).*

As indicated in the secure-base parenting model (Schofield & Beek, 2009), *Family Membership* is an integrated feature in developing a secure base. The function of family membership is, in part, about providing consistency and stability. It brings about a feeling of trust that enables a deactivation of the attachment system, reducing anxieties and fostering deeper engagement in other relationship functions. To demonstrate this, Dana said: *"I keep moving Rose and Socks along the line in little bits cos I keep feeling happier here and I think they like having me. I like them more each time cos we always spend time together and do things together. They both want to spend time with me but I put Rose just a tiny bit more cos she asks me stuff and Socks can't do that"* (Dana: revised AAQ notations).

Here enters an important debate for the literature regarding animals as attachment figures. The *extent* to which an animal satisfies the function of an attachment figure, aside from the fact of *whether* they satisfy the function of an attachment figure, is disputable. Research has demonstrated that animals satisfy the four tenets of an attachment figure (see Zilcha-Mano et al, 2012 and Kwong & Bartholomew, 2011 for reviews), yet there remains a lack of conceptual clarity concerning the depth of animals as attachment figures. As Dana indicated above, the need to talk about problems hinders their relationship with the animal, which is contrary to Jessie's interpretations that a lack of verbal connection helped thinking and understanding, as they disliked being questioned owing to their difficulty verbalising their emotions. In the case of Jessie, it was the subsequent influence of the animal that aided his discussion of his troubles with his foster carer.

This research has not employed measurement tools to assess attachment styles in relation to human-animal relationships, although contemporary anthrozoological attachment investigations have indicated that human-animal working models may be conceptualised in accordance with anxious and avoidant working model outlines (c.f. Zilcha-Mano et al, 2011) and that individual differences in attachment to animals reflect

internal working models that are associated with pet-related expectations and emotions. Thus, this research does not advance literature regarding human-animal attachment styles; rather it advances literature regarding the function of attachment figures for children in foster care.

Other reasons for scale adjustments centred upon the behaviours of the foster-carers, suggesting that sometimes it is perceptive developments that have significant impact upon emotional interpretation, such as: *"I moved Rose further on the good side because when we were away on holiday I felt like I was away with a real mum"* (Dana: revised AAQ notations). Similarly, Robin said: *"I moved Trudi up because of parent-teacher evening at school. Everybody thought she was my mum and it felt good when she was asking lots of questions about me. She smiled and said she was proud of me cos I was doing well at school" (Robin: revised AAQ notations)*. This speaks clearly to the *Acceptance* branch of Schofield & Beek's (2009) secure-base parenting model: *Acceptance* refers to the carer accepting the child for precisely who they are and helping to build self-esteem. In the case of Robin's recollection it indicates how the Trudi helped him feel valued and important, and how Robin evaluated the authenticity of the interactions.

Reasons for Availability Scale adjustments may finally be explained in conjunction with the *Sensitivity* branch of the secure-base parenting model. Affect regulation is a critical component of the secure-base concept for it develops recognition and understanding of emotions, and comfort in managing distress without being over-whelmed (Miens, Fernyhough, Wainwright, Gupta, Fradley, & Tuckey, 2002). For these children, having a sensitive response that concomitantly enables them to develop their emotional competence is important to the development of resilience in a child-oriented way (Sinclair, Wilson & Petrie, 2005). The sense of attunement is reflected in the following reasons for AAQ revisions: *"I moved Rich up cos he was real nice to me when my Mum didn't turn up at contact again. He knows it upsets me and now I think he gets*

sad when I am sad and he tries to make it better. It's like he makes more time for me now and I like that he does it" (Ash: revised AAQ notations). Referring to their other carer, Gilly and their animal, Scruff, Ash explained: *"I moved Gilly and Scruff up cos when people at school were being mean they seemed to really care that I was upset and wanted to spend time with me. Rich wanted to help by talking to them but I liked that Gilly just hugged me and helped me talk about it"* (Ash: revised AAQ notations).

As a complementary derivation of the revised-AAQ, the qualitative explanations for revisions of the availability scale may be contemplated in accordance with the tenets of the secure-base parenting model. Mindful of this, the secure-base parenting model (Schofield & Beek, 2009) offers proactive advice for foster carers, which may be monitored by responses through the revised-AAQ, indicating how carer behaviour is (a) perceived by and (b) influences child relationship perceptions.

Apparent through the Availability scale is the range of experiences and interactions that led the children to reconsider the placement of their carers and animals along the continuum. Attending to the needs and emotions of the children commonly resulted in increased perceptions of availability, while being busy or disinterested resulted in the reduction of the child's perceptions of availability. What is clear are the individualised perceptions of what constitutes a reason for scale adjustment. The nuances of each judgement reflect the idiosyncrasies within the children's perceptions supporting Hoffman et al (2006) who called for awareness of the need for individualised attendance to enhancing children's feelings of security.

Movement on the Anger-Distress Scale

Given reasons for the revision of placements along the Anger-Distress scale of the revised AAQ depict circumstances of emotional interpretation. Bruskas (2008) identified multiple domains in which children in foster care may be challenged of which, delayed emotional development is considered a pervasive risk factor for future difficulty in

understanding the self and relating to others. Accordingly, Sam conveyed her inability to communicate an emotion: *"I can't explain it. Not because I don't want to but because I don't know. Just sometimes I feel right angry at them"* (Sam: revised AAQ notation), which is in accordance with previous literature that suggests children in foster care have greater difficulty understanding negative emotions and processing them in an effective manner (e.g. Robertis & Litrownik, 2004).

As such, difficulty understanding anger can be expressed with externalised behaviour problems (Heflinger, Simpkins & Combs-Orme, 2000). Accordingly, the difficulty arises in how behaviour problems are addressed by the foster carer without provoking further problematic responses (Robertis & Litrownik, 2004). *"When I am worried I can be a bit cheeky and then Bruce tells me off. I don't like that and it makes me feel angry. I don't feel that about Sheila much now, but I do sometimes feel angry with her still but not as much cos I like her more now and she loves me"* (Sam: Diary entry). Sam's understanding of her carer's behaviours thus offers important information for facilitating the development of the child-carer relationship.

Understanding where comfort is derived is also critical for the sensitive provision of care. To explain, Alex experiences a calming influence of her companion animal, McCavity, but during an angry outburst was denied access to the animal by her carer. That event influenced her perceptions of anger toward Mary: *"I put down more anger with Mary cos she stopped me seeing McCavity and said I had to stay in my room until I wasn't being mad any more but McCavity stops me being mad. I was angry cos she wouldn't let me have a mobile and then she didn't want me near her"* (Alex: revised AAQ notations). Delivering discipline and comfort are functions of a 'stronger and wiser' caregiver (Bowlby, 1969), which for secure children may serve to provide the comfort of clear boundaries. However, for children with attachment difficulties, the combination of discipline *with* sensitive care may undermine the authenticity of the sensitivity (Robertis & Litrownik, 2004). Foster carers that have animals present in their

homes may benefit from an awareness of how the child-animal bond may provide safe haven functions for the children that can help them work through their difficulties.

However, there are occasions in the child-caregiver dynamic where the carer is obliged to communicate distressing information. For instance, Charlie said: *"I moved Sue right down that end of the line [bottom] because she told me I can't see my mum again. I am dead mad about it and she wont let me go and see her at contact any more. I think it's dead cruel and she knows it makes me angry so I put her right down there and now she only gets more angry with me" (Charlie: revised AAQ notations).* Despite this change in contact with the biological mother being commanded by the authorities, the news was delivered by the foster carer who then became the outlet for the child's anger. Dutton (2007) explains how this expression of anger is misplaced, but ultimately an easy arena in which to express such feelings. Interestingly, and in accordance with the same child's ratings upon the availability scale, the perceived availability of the carer was not altered in light of this increased felt anger.

Instigated by an identical change in social access, i.e. a denial of access to her biological mother, Jan also expressed changing perceptions of anger toward her carer. Instead of reporting an ongoing feeling of anger towards her carer, a more fluctuating experience is attributed to rating scale variation. She said: *"I moved Liz right down when she gets angry with me cos it makes me feel angry too. Like when she told me I couldn't see Mum anymore I thought it was really mean…I've moved her about a lot cos sometimes I feel ok with her, but sometimes I feel real angry. It's not like something happens always but I do feel angry though and I can be angry with her"* (Jan: revised AAQ notations). Robertis & Litrownik (2004) offered fascinating findings in the arena of anger. Their research indicated that children in foster care, when experiencing anger, were more likely to inaccurately express these feelings. Their findings may be used as support to convey the necessity to sensitively assist fostered children with understanding and managing anger so as to prevent the expression of misdirected angry impulses.

In circumstances where carer and child were attuned in their dealing with emotions, felt anger towards the carer was decreased. Decreased felt anger and distress towards the carer is an indication of attachment security (West et al, 1998) and accordingly Robin explicates how his carer's management of distress facilitated an environment in which he felt he perhaps understood his anger. *"I moved Trudi along the line there because…well she is very kind to me and looks after me. I don't feel as angry any more, or when I do I think I know a little bit why. Trudi doesn't make me talk if I don't want to and she doesn't ask me lots and lots of questions so I don't get as annoyed. And because she helps me a lot I like her"* (Robin: revised AAQ notations).

Characteristics of the child are clearly instrumental in how the carer's actions are interpreted and thus carers have an extraordinarily demanding task to understand children's interpretations and employ strategies that complement the child's interpretation bias (Hoffman et al, 2006; Robertis & Litrownik, 2004). Mindfulness of anger-distress and being equipped with the skills to assist individuals to work through those difficulties is in part achieved through secure-base development (Dutton, 2007). Responding to the child in a way that facilitates trust and eliminates underlying reasons for anger is best achieved through intimate understanding of the child's interpretations of behaviour. Ash illustrates this: *"I didn't move him much but sometimes he gives me a glare to tell me off or if I say something a bit bad he can look a bit angry. I don't like it. Gilly doesn't get angry with me when she tells me why I should not do stuff or say things, she talks to me about it but sometimes I feel Rich is angry and that makes me angry"* (Ash: revised AAQ notations). This notion implies that modification of foster parent practices may have the potential to ameliorate the emotional problems for some foster children, and again this should speak to those interested in utilising or extending Schofield and Beek's (2009) secure-base parenting model, or Hoffman et al's (2006) Circle of Security Intervention.

Movement on the Goal Corrected Partnership Scale

Reasons for GCP alterations can best be explained in accordance with the *co-operation* tenet of Schofield & Beek's (2009) secure-base parenting model. The GCP scale taps the extent to which the child considers and is empathetic to the needs and feelings of the attachment figure (West et al, 1998). McDonald and Messinger (2010) found high correlations between empathic ability and secure-attachment, citing that trust in the security of a relationship enables a deactivation of the attachment system and engagement with the attachment figure as a distinct being (readers are encouraged to remember how the attachment system is activated in times of distress as a means of deriving the necessary support for survival and assistance to maintain emotional homeostasis).

In support of this, Mikulincer et al (2001) showed how security priming enhanced empathic abilities, suggesting to foster carers that cognisance of carefully developing autonomy in a supported and gradual process may be best for scaffolding independence. Sharing experiences in a cooperative manner may educate foster children about appropriate empowerment and constraint, which will serve to create an effective navigation of autonomy (Schofield & Beek, 2009). *Co-operation* refers to feeling effective and realising how the self can impact upon the environment. In the context of a care-giving relationship, it refers to an alliance between the child and the caregiver, through which both competence and confidence are developed in the dealing with difficulties and new experiences.

The concept of an alliance has arisen with regularity in the development of relationships (e.g. Parish-Plass, 2008; Schofield & Beek, 2009, 2010; Weiss, 1974), and thus the interactions between the child and the attachment figure are important for the internalisation and confirmation of relationship roles. Providing a platform on which to interact is a noteworthy intention of foster care. Highlighting the influence of a lack of interaction, Sam explained: *"I put Bruce lower down cos he really doesn't like being*

disturbed when he's angry and he's always busy so I don't get to help him much. He likes doing things on his own"(Sam: revised AAQ notations). She continued to explain her placement of Sheila and Fido upon the revised AAQ: *"I put them [Sheila and Fido] there cos I love helping them… we're a team, but he's [Bruce] always busy so I don't get to help him much" (Sam: revised AAQ notations).*

Developing the topic of interaction, Alex indicated the importance of co-operative experience in the formation of an attuned alliance (Schofield and Beek, 2009). She commented: *"I moved Mary up more than McCavity cos when I help Mary she likes it and I like it when she laughs and talks to me. But I put McCavity down a bit cos when I help him he sometimes walks off and does his own thing. I like helping him but I like helping Mary more cos then we can talk as well" (Alex: revised AAQ notations).* Although Alex stated that: "*it makes me feel good to help McCavity" (Diary entry)* she also recognised the value in Mary's consistent recognition of their interactions and suggested there was something important in the reciprocation of the relationship that was more evident with Mary than with McCavity. Charlie who also valued shared experiences noted the co-operative interactions: *"I moved Sue that way [up] because when we do stuff together she talks to me about how I am doing. She asks me if I am ok and then we talk about things at school and anything else really. I like helping her cos then we spend time with Storm as well and we play games with her and she isn't doing other jobs" (Charlie: revised AAQ notations).*

Shared experiences, or relationship transactions, are critical for understanding not only the self and others, but the self in relation to others (Carr, 2011). Schofield & Beek (2009) explain how some children enter foster care having experienced powerlessness in their birth families, or perhaps an excess of power as a result of their early relational experiences. The authors explain how these contrasting histories may be reproduced within care placements, as children feel powerless about their familial stability and how they can actuate their environment. Accordingly, foster carers are in a

position to educate children about the appropriate exercising of choice and power in an ongoing co-operative relationship. These results speak to foster care professionals and suggest a need to be mindful of their approach to interactions in light of the child's care history. To illustrate, Jessie explained: *"I moved Lucy that way a bit [down] because for a bit she has been telling me what jobs to do like she got all serious and doesn't do them with me as much. I do 'em cos it helps her out but she is busy thinking of other stuff I reckon"* (Jessie: revised AAQ notations). This is in contrast to the experience of Ash who moved her male carer, Rich, markedly along the scale as a result of their co-operative interactions (see Ash's Graphical AAQ developments). She said: *"I moved Rich up again cos we get on better when we do things now and I like helping him. We talk a lot when we're doing things and he even tells me about what he has been doing which is nice. He tells funny stories and he always says 'how's things for you?' when we're doing stuff together" (Ash: revised AAQ notations).* This really speaks to foster carer educators as these precursors to changing relationship perceptions indicate that intimacy and shared co-operation are important for developing feelings of security.

Each of the discussions regarding scale adjustments speak to the secure-base parenting model for foster care. The Secure-Base parenting model (Schofield & Beek, 2009) is constructed as an inter-related model of relationship ingredients, and these elucidations from the children corroborate the interplay of those characteristics; these reports "demonstrate the way in which the parenting dimensions combine and interact, with the foster carers providing availability, sensitivity, acceptance and co-operation" (Schofield & Beek, 2009 p. 264), the results of which are expressed here through the children's interpretations.

These explanations provided by the children for their changing relational perceptions shed light on the mechanisms that cause children to reconsider their relationships with their carers and the animals in their homes. While it may be possible to draw parallels

between the children's changing accounts, these adjustments to measurements serve as confirmation of the individual processes that are taking place within the confines of each of the relationship dynamics. What is clear is the interaction of carers and animals within the home and that children evaluate the multiple interactions sometimes in broad terms and in other circumstances in fine detail. Whether the animals can affect the changing levels of relationship quality will be addressed in the immediately ensuring sections.

Qualitative Evidence of Attachment Relationships

Identifying Critical Features of Attachment Bonds

Presented here is the analysis of the collated qualitative excerpts from the interviews and longitudinal diaries in keeping with the presentation of narratives in Kwong & Bartholomew's (2011) investigation. The case studies are drawn together here for consideration of the data within the framework of attachment theory. Pertinent data is presented as evidence that animals did serve the function of attachment figures in accordance with the tenets of attachment theory.

Safe Haven

"A Safe-Haven is the kind of support that meets a person's needs for comfort, reassurance, assistance and protection in times of danger or distress" (Zilcha-Mano et al, 2012 p.2). The interviews, diaries and narratives relating to the AAQ were analysed for indications that participants turned to their companion animals as safe havens. Similarly to Kwong and Bartholomew's (2011) findings, participants reported perceptions of high levels of emotional attunement from their animal such that they often did not need to seek out the animal: "Zak comes to find me…and when I am feeling a bit worried…it's like she can tell because she is really gentle and she wants to cuddle up to me and stuff like that because she makes me feel much better and…she stops me worrying" (Robin: Diary entry).

> *"I like spending time with Socks and I used to hide in [the living room] with him when there was a knock at the door. I used to worry it was the social worker coming to take me away. I didn't feel safe without Socks and when I was with him, holding his ears I felt relaxed and I wouldn't have the big thumping in my body"* (Dana: Final Interview).
>
> *"Scruff was the only person that would stop me from feeling worried at night. I didn't like being alone at night in my room. I felt embarrassed crying in front Gilly and*

Rich but I could cry and feel safe with Scruff on my bed. When I cry he wriggles into my neck and I rest my face against his belly. Then I cry more, but I feel better after I cry. Like the tears help get the worry out my head. I feel safe with Scruff there beside me. Like he wants to help me and stop my bad thoughts" (Ash: Final Interview).

Significant events that indicated the animals being used as safe havens concur with what Kwong and Bartholomew (2011) referred to as 'contact comfort'; those experiences where close physical contact and skin-to-skin touching is desired and provides a soothing experience. The children reported feelings of anxiety regarding placement stability with a common cause involving visits from the social worker. Such occasions consistently evoked closeness between the children and the animals.

With other instigations of worry, the children also reported the use of their animal as a safe haven, sometimes equal to or surpassing their human carers: "*When I feel sad I go to Zak but I do go to Trudi more now. It's just I find it easier going to Zak because…I don't have to talk about stuff as much, I can just think about it and she makes me feel really calm and she empties my head of stuff when I get confused and worried. … I go and sit with Zak and then everything slows down and I like that. I can't do it with people because they're…waiting for you to say something or waiting to say something to you. I like that Zak is more easy than that*" (Robin: Final Interview). Jan stated that: "*If I'm sad Blue follows me round… I like getting back [from school] and being with her if people have…said mean things. I feel much better when I am with Blue" (Jan: Diary Entry)*

In a research paper, Smolkovic (2012) suggested a greater likelihood of people forming attachment relationships with animals if they have fewer social networks and confidants. Jessie has difficulties with maintaining friendships and with expressing his feelings towards his carer: "…*when she asks me what's wrong it's hard cos I can't like explain it and stuff. I don't know how to explain what I'm thinking about. That's why I*

don't really talk to anyone" (Jessie: Final Interview). Yet he finds it much easier to turn to his dog at time where he feels distressed: *"I like to lay with Tex when I am confused and feeling funny*" (Jessie: Diary Entry) Seeking the comfort of their animal's presence was something that Dana described at a distressing time at school: "*When they found out at school that Rose isn't my mum and I don't have a mum I wanted to run away and come back to be here with Socks. When I am with him I feel better and happy again*" (Dana: Diary Entry). That the child perceived his dog as an emotional support despite the physical absence is strong evidence of safe-haven existence, and supports prior research that suggests symbolic proximity to an attachment figure can soothe distress (McGowan, 2002).

These excerpts indicate that the children were able to perceive safe haven features within their relationships with their animals and derive a sense of soothing and comfort from their contact with the animal in times of distress. Such findings speak to the data generated in a recent study by Zilcha-Mano et al (2012) where both physical and cognitive animal presence indicated safe-haven features within a facilitative distress-inducing task. This utilisation of a safe-haven, and receiving this support, or at least feeling confident that it will exist when needed, is known to help people cope with stressful events more effectively which in turn which has long-term physical and mental health benefits (Sable, 2012). The samples diaries suggest they are able to rely upon these animal companions as aids in their coping with distress.

Similarly, Kwong and Bartholomew (2011) highlighted that the relationships their sample had with their animals provided an emotional support that helped eradicate feelings of loneliness and facilitated a buffering effect against anxiety and emotional distress. The children's diaries indicate that their animal was a source of intimate connection that they sought above most others within their care homes, particularly in the early stages of entering that care placement. Nonetheless, this buffering effect was of great importance to the children observed here in foster care. In addition to social and

personal relationship challenges, the children also expressed continuing distress relating to their placement stability. Sam explained: *"I always have these feelings that things might change. And they don't go away. Sometimes they make me panic a lot and I feel rushed and nothing makes sense…I can't remember the last time I wasn't thinking about that. Fido makes me feel calm and I don't ever worry so much when I am with her…Fido is always there for me" (Sam: Final Interview).*

Zilcha-Mano et al (2012) hypothesised that insecurely attached individuals (in relation to their animals) were less likely to seek support from their animals in times of need or benefit from the proximity of their pet when coping with stress. Accordingly, these findings are suggestive that the children in this sample developed more-secure attachments with their animals. In light of the complete data, it seems plausible to conclude that children did form more secure relationships with their animals, which speaks to foster-based research regarding positive relationship interventions for children in care. Indeed it speaks with qualitative support for Stovall-McClough & Dozier's (2004) quantitative investigation of attachment formation in foster placement transition. These findings contribute child-centred explanations that provide understandings of the processes reported in Stovall-McClough & Dozier's (2004) observation and carer-based findings, suggesting transitional advantages to animals in foster placements.

It appears that animals provide the children with reassurance during the inevitable threats of foster placements. Their accessibility and authenticity provide the children with an unconditional acceptance that at least has the ability to exist quite independently of their human relationships. Additionally, the animals appear to facilitate communications about feelings and worry, and catalyse conversations between the children and the carers, accelerating the development of supportive relationships.

Secure Base

"Secure base support is the type of support that meets another person's needs for exploration, autonomy, and growth when exploration is safe and desirable" (Zilcha-Mano et al, 2012 p.3). If this relationship function is adequately realised then an individual has the confidence to explore novel and challenging experiences and engage with their environment safe in the knowledge that they have a source to which they can return for comfort if necessary (Feeney & Thrush, 2010). These authors note, amongst many others, that secure base features within an attachment relationship are heavily linked with cognitive, linguistic and social developments. In essence, a secure base provides an encouraging comfort blanket for undertaking life's endeavours. Without it, there may be far reaching detrimental implications.

It is worthy to note at this point in the analysis that previous researchers, Kwong and Bartholomew (2011) noted difficulty in categorically distinguishing secure-base features from safe-haven features of the human-animal attachment relationship. They stated that "safe haven and secure base sometimes coincided because felt security develops from having a reliable source of comfort" (p.428). Almost half of their study were able to clearly identify secure-base features of their relationships and it appears clear that children in this sample were also able to identify secure base features, although perhaps not quite as frankly as they could the safe-haven elements.

Sam: *"I do feel more confident when Fido is around, like when people ask me what I think about stuff and when talking to people…I feel better if Fido is around, but I don't need her all the time; just when it's difficult…"* Sam later explained in relation to confidence being derived from her dog: "*I sit with her and she makes me calmer and then I can go and do things which I can't with other people"* (Sam: Final Interview).

Ash: *"…when school is [bad] or I'm away from home I do think about Scruff and where we can walk that evening. I like that I can always go back to him and he's the first to say hello… I feel more confident knowing he is around and will be there when*

I get home cos if it's a good one or a bad day he still wants to see me…"(Ash: Final Interview).

Ash added: *"I find it easier to talk about difficult stuff with Gilly or Rich when Scruff is around. He doesn't really do anything special, but just knowing he is there makes it easier to do things that are tough" (Ash: Final Interview).*

The notion of a secure base was evident through the children's actions with their animals, too, for example, feeling more confident to go for walks 'alone' without an adult present. Sam describes: "I feel much more confident with Fido and like I can do a lot more. I don't worry so much and I take her when I go to the shops because I can go on my own and I can work stuff out cos I know that she'll be there with me" (Sam: Final Interview).

Similarly, Robin expressed this idea of greater confidence gained from being with Zak. He said:

"I feel better with her and I have time to think about stuff without having to worry if I say the wrong thing…sometimes when I try to tell people how I feel I get angry so I feel more happy when I am talking with Zak. I [think] about things that happened in my last place and Zak stops me from feeling all sick in my belly …she stops the bad feelings but I can still think about them and it helps me" (Robin: Final Interview).

Robin continued with deeper reasoning why their dog provided him with such confidence in the relationship: "…Zak won't get rid of me so I feel really safe with her. I think she's my friend because she wants to be and not just because she has to be" (Robin: Final Interview).

Jessie reasoned why his dog, Tex, provided him with the confidence to go to school and to do things away from the home. He said: "*No matter what's gone on Tex still comes up to me and be my friend. Because of Tex I am never alone*." He added*: "The dog isn't going to get rid of me and I always worry that people will*," (Jessie: Final Interview)

explaining why he has more trust in his relationship with his dog than he does with other people.

Jan echoed this notion of acceptance from their dog, but provided insight to the capacity of her perception of the dog: *"Blue is one of the best at looking out for me and I know she will be there for me, but she can't sort my problems for me you know. Like she can make me feel better and I feel better when I am around her, but she can't tell me answers"* (Jan: Final Interview).

This insight speaks to scholars attempting to understand the extent to which animals can fulfil attachment functions. For example Zilcha & Mikulincer (2007) suggested that animals offered similar but *different* functions in human-animal relationships, suggesting there were basic features of attachment bonds satisfied by animals, but that they lacked the coherence of more complex attachment bonds available with other humans. Subsequent research findings (e.g. Kwong & Bartholomew, 2011; Zilcha-Mano et al, 2012) have investigated human-animal attachment bonds further and suggested that in some cases, animals may fulfil more complete roles as attachment figures. This data suggests that animals may provide children with the necessary attributes to experience a secure base, but not in all cases. Some children experienced positive influence from the relationship with their animal, but recognised that other humans were more able to help them in times of need.

This is not to omit results from those children who clearly identified their animal as a strong secure base, deriving felt emotional support and the confidence to explore their feelings and environments in the knowledge their animal would be available if they needed to return for comfort (Zilcha-Mano et al, 2012).

Separation Distress

Separation Distress is indicated by distress through events in which the individual becomes separated from the attachment figure and might be met with resistance to the

circumstance. Separation distress is thought to arise because of protest at being separated from a necessary source of comfort.

Jessie described interesting thought processes that conveyed his emotions and helped make sense of his AAQ adjustments. He described being 'naughty on purpose' so that he would be sent to his room where he could be on his own. Although candidly describing his desire for being close with and in contact with Lucy, he also described a very pervasive worry that he would lose her, and thus it was easier for him to deal with the punishment of being naughty than to risk feeling happy and having that taken from him. However, during these periods of separation, although describing an ease with being alone, he also described his emotional protest at being separated from Tex and how he would feel 'relieved' and 'happy' when Tex would come and find him because *"she knows when I've been naughty and I don't even have to tell her – she can just tell… she can make me feel better really quickly*" (Jessie: Final Interview). He described during his interview that when he was worried he would feel nervous inside and think *"will she come and find me or wont she come at all, but she always did come up to find me."*

When holidaying with Gilly and Scruff, Scruff had to sleep in the car away from the building in which they were staying. Ash reported: "*I was worried because he wasn't in the house. He usually sleeps beside my door and I didn't like sleeping in a strange place and not having him there too… I was worried because he wasn't in the same place as me when I went to sleep" (Ash: Final Interview)*. Gilly explained that since going to live there, Ash "was always within eyesight of Scruff and when she wasn't she was wondering where Scruff was" (Final Interview).

Robin's carer, Trudi, expressed how the anxiety caused by separations was evident more at the point of reunion than at separation. She explained that *"Robin would obviously let go of a lot of tension the moment I picked him up from school but he didn't appear to put up too much protest when we dropped him off" (Final Interview)*. But

when collected: *"He would ask about Zak and check what I had been doing all day and then he would come in and rush upstairs to check his stuff was still in his room and that it hadn't been packed away for him. He had a real issue being separated from Zak."*

Robin said: *"I would worry most if I was away from Zak because I know he would never get rid of me. And when I was away from him it would mean that I was away from Trudi and then I wouldn't have someone I could go to for help or someone come to me to make sure I was ok. I always felt better when I was back with Zak" (Robin: Final Interview).*

While each of the examples presented here indicate different incidents where children have felt separated from their carers or animals, they each highlight the disagreeable emotions experienced as a result of the separation. Key to understanding the attachment function of this tenet of an attachment relationship is the direction-of-the-concern generated by the separation. Kwong and Bartholomew (2011) noted that many within their sample of human-assistance dog dyads, indicated separation anxiety featured in the relationships with their animals, but that the anxiety surrounded the animals' welfare, hinting more suggestively toward a care-giving bond than an attachment bond. Conversely, with this research sample, participants expressed disagreeable emotions at separation due to the negative impact upon *their own* emotional regulations. "Within an attachment relationship, separation anxiety serves to maintain proximity [to the attachment figure] for protection and safety. Therefore the focus of concern would be on one's own well-being" (Kwong & Bartholomew, 2011 p.428) helping clarify separation anxiety as an attachment feature over a care-giving relationship characteristic.

Proximity Maintenance

While it is easy to present situations whereby children sought to maintain close proximity to their animals, these occurrences per se are not an indicator of an attachment

relationship. Being able to apply such behaviour as an indication of an attachment bond requires that understanding is gained about *why* proximity to that particular being is sought. Bowlby (1963) suggested that attachment relationships involved this notion of proximity maintenance in so much as the dependent individual (the child) seeks to remain close to the attachment figure. During pre-perambulate stages of development distress-demonstrating behaviours function to draw the attachment figure toward the child, but with the development of independent movement the child utilises their physical prowess to maintain proximity to the caregiver through following.

Within the sample, all children expressed a desire to be close with their animal, particularly at times of distress. Seven of the eight children recalled occasions when they sought the company of their animal over their human carers, citing (a) the readiness of their availability and (b) their intuitive responses to the children's distress. For example, Dana suggested that his dog was more effective at helping him feel better than his carer*: I feel like I have to explain how I feel to Rose but Socks just knows how I feel. He can sense it, and he behaves differently when I am sad or angry or happy. He knows, he's very clever like that" (Dana: Final Interview)*. For this reason, Dana explained that he would often seek the company of Socks over Rose. Similarly, Sam described how she had been upset by an event on summer camp and how she had wanted to be with her dog. When she was able to leave the event she went to Fido and recalls that: *Fido knew I was sad when I came home and rather than jumping on me, she was like, real slow and she pushed her head into my neck and licked it. I liked it cos I think she knew something had happened, that's when Sheila knew something was up, and Fido makes me feel safe and happy like that. I don't even have to tell her" (Sam: Diary Entry)*.

In detail, Ash explained why she often sought the company of her dog ahead of other people: "*…when bad stuff happens, or I have a really bad day, Scruff's very slow and quiet. He looks at me different, like he knows something is up, but he doesn't quite know what. But he's always trying… he's there the whole time. And he like seems to act*

the same way I feel – like he knows what I'm really feeling. Weird in a way cos it's like he can read my thoughts. Sometimes when things are really shit, sorry, when things are really bad, I like being with him because I like having a cuddle and he never seems to really get stressed. I like that. He seems calm the whole time, and always there. Sometimes I don't get stuff from Gilly or Rich when I really need it, and that's when Scruff is around for me. And that's when I like it. I don't have to feel bad about saying things to him. He doesn't tell people – because he can't!" (Ash: Final Interview).

This is not to say that children did not turn to their carers, for these children each expressed a pleasure derived from the carer's closeness, but equally alluded to a fear that their kindness and care might be temporary. Jessie explained his preference for Tex over his Lucy: *"I'll always like Tex first. It's just the way I think. I think it's different for other people. Everyone's different. But Tex isn't going to get rid of me, and I always worry that people will, ever since they took me away from where I lived with me mum and me sister. It's not been the same. So I don't trust people all that much" (Jessie: Diary Entry).* Similarly, Robin provided rich description for why he feels more comfortable turning to his dog, despite feeling very close with his carer: "*I can still find it hard being really close with Trudi cos everyone in the past has been horrible to me and eventually everyone has got rid of me, and I guess there's still a chance that Trudi might do that, so I don't feel totally safe with her. I mean I would if I were like adopted or something but I'm still in foster care which is why the social worker comes around and checks on me, cos they like, own me or something like that. Nobody wants to adopt me so I can live there all the time without having to move to new homes. But with Trudi it's like I feel really good when I am close with her and that feels good, but when it gets too close sometimes I try and get away from it because it would hurt a lot if she does give me back to the social worker and I have to go somewhere else. But she seems different to all the others cos she seems really nice. I don't mind being really close with Zak cos she wont get rid of me so I feel really safe with her. I think that she's my friend because she wants to be and not just because she has to be" (Robin: Final Interview).*

Jessie also explained his pervasive worry of being moved again, and how this causes him to feel closer to Tex than Lucy. About his worry he said: *"…if I get too happy here, then I'll miss it more when they move me. That happened in my first house. I was there and I liked it cos they were real nice and they were real kind, but then after like four or maybe nine weeks they sent me back" (Jessie: Final Interview).* Because he feels unsettled, Jessie says that he finds it difficult to form very close relationships with his carers.

The ability to maintain trusted proximity with the animals was thus highlighted as a major contribution to being soothed at times of distress, indicating this characteristic of their relationship is in accordance with the fourth tenet of an attachment bond. Of significant difficulty to the children were issues regarding the bedroom. The bedroom was a common place where they were able to express their sadness and spend alone time with their animal; a personal space in which they were able to access help comfortably. The three boys within the sample were particularly comforted by the accessibility of their animal-relationship within the privacy of their bedroom where they could express their feelings amid the felt-security of their companion animals.

Providing further support that proximity to the animal was desired is evident through Alex's interview where she explains the difficulty with her behaviour and how it affected the care provided by her cat. When she was sad or scared she expressed a *"confusion on both sides of my head"* that caused her to feel angry and worried. She wanted McCavity to sit with her and comfort her, but when she developed a rage he would run for safety. This saddened Alex but helped her understand that her behaviour needed to be worked through more gently if she was to keep McCavity close to her. She said: *"I like it that when I calm down he comes straight back and wants to be with me. He forgives me very quickly and wants to care for me again…I like to sit on my bed with him and cry and think about things" (Alex: Diary Entry).* This hints at an educational function of the animal for relationship development akin to the reworking of a schematic

that helps the child understand how they may be able to derive help from their supportive relationships.

Thus, understanding the motivation behind proximity maintenance can help give understanding to whether there are attachment-based functions underpinning the behaviour. Evident from the children's interviews and diaries was their desire to maintain proximity to their animals for the felt security and soothing they were able to derive at times of distress.

Influence of the Animal on Human-Human Relationships

Evidence of Facilitation

Previous research has demonstrated that animals influence human environments in ways that alter perceptions of reality (Sable, 1995) and can lead humans to perceive themselves and others more positively (Fine, 2010). Here it is discussed through two processes, how an animal's presence within the foster environment may facilitate human-human relationships from an attachment perspective. In this section I first utilise participant diary and interview reports to suggest a process of *softening,* which describes the influence of the animal on the child's perceptions of the environment (Levinson, 1969). Secondly, I utilise the data to inductively propose a process of *switching,* which presents a case of relationship development, starting with the animal and extending to other humans. Diary and interview transcripts are used to support this result.

(A) Softening

(Analysed with Schofield & Beek's, 2009 – Secure base modelling)

In response to the Government's White Paper - *Care Matters: Time for Change* - Schofield and Beek (2009) addressed the pertinent issues within foster care. Specifically, they elucidated the notion of a secure base within foster placements demonstrating the need for fostered individuals to experience mindful support through foster-parenting models. The authors constructed a parenting model through which a secure base may be facilitated, suggesting the components operated most effectively when interconnected, providing a coherent and consistent stable environment. With this policy-influencing model in mind, results are now presented that demonstrate the utility of animals in facilitating the steps involved in Schofield and Beek's (2009) Secure-Base Parenting Model.

Sensitivity; Acceptance; Co-operation; Family membership; Availability: Each of these features support and elicit each other in a self-development process. The

provision of each of the features establishes an environment in which individuals may feel supported, guided, safe and equipped with comprehensible perceptions of others. In turn this is thought to aid understanding of their emotions and behaviours. Notably, the authors suggest that although each tenet of secure-base parenting in its own right offers assistance to children, they are most powerful when provided in conjunction with each other (Schofield & Beek, 2009).

The children appeared to utilise a relationship with a social animal very strongly at the point of placement transition. Theory suggests the presence of an animal may readily influence the individual's perception of others to be more friendly, more welcoming and more caring (c.f. Levinson, 1969; Parish-Plass, 2008), whilst recent research has further contributed to the understanding that animals may facilitate social behaviours between humans (O'Haire et al, 2013). From the considerations of an attachment orientation, the immediate turning to an animal is less threatening than turning to (yet) another human, the likes of which may be perceived negatively due to compromised internal working models. The animal may therefore be considered privileged that it does not contend with the child's negative working model guiding the relationship judgements projected on to it (Parish-Plass, 2008). *An animal may be considered a functional aid at the point of placement transition.*

Increasing positive perception of caregiver.

Each child reported their observations upon their arrival in the foster placement, of the carer's behaviour as directed toward the animal, stating the importance of these observations in the formation of their opinion about the carer. Dana said of his arrival in the current placement that Rose's interactions toward Socks made him feel "*like she was a person I could trust and she would take care of me too. Like Socks hasn't got a mum or a dad either and Rose looks after us both the same. She is a nice person… she is always really nice to Socks and does lots of things for him*" (Dana: Final Interview).

Dana further explained that: "*I heard Rose talking to Socks about things about me. I heard her telling him to be nice to me and not to feel jealous because she still loved him. She said that I seemed really nice and that she wanted to get to know me. I sat on the stairs and listened and watched her through the rails. It made me feel funny in my tummy when she said those nice things, and when I saw that she was talking to Socks I liked it so I started talking to him too*."

Jessie described the importance of his carer's behaviour toward the dog. He said: *"She was always nice to Tex, so I knew that she'd be nice to me too. Even when Tex is bad, like barking or biting things…she doesn't hate him, or get rid of him*" (Jessie: Final Interview). He later provided more explanation why Lucy's behaviour toward Tex was important, discussing issues of consistency and trust: "*I liked Lucy because she was dead kind to Tex all the time. After when I liked Tex, that's when I liked Lucy*." Further to this, Lucy explained that: "*I felt judged…he was like a shadow for the dog…when I was with the dog he watched me with eagles eyes" (Final Interview).*

Sam said of her former placement: "*…there was a nice dog there, but he wasn't allowed in the house and I didn't think that were very nice…I don't know why they had him, they were never really that nice to him*" but of her current placement said: *"Sheila was really nice to the animals so I could tell she was going to be a nice person*," and later returned to that topic to say: "*Well, like I don't trust many people because of [describes abuse]…but when I got here and they were so nice to the animals and they would help them with whatever they needed I could tell they would do the same for me. And …when I have a problem I know that she will always try and help me" (Sam: Final Interview).*

Such evidence for how animals can improve individual's perception of others is not new to the literature. However, with these findings it is suggested that the animals facilitate important behavioural interactions with and perceptions of the caregiver that appear to influence the attachment representations within the children. This is most clear

when considering the results from the revised-AAQ as they showcase the scale of changing perceptions with the qualitative support to explain the reasons that motivate the change. Accordingly it is suggested the presence of the animal facilitated the revision of insecure working models in response to the actual experiences the animal instigated. They provided a site on which co-operative, sensitive, family membership could be developed (Schofield & Beek, 2009).

The perception of the caregiver hinged in part, upon the care they were observed to provide to the animal. Parish-Plass (2008) suggests that children readily identify with animals, promptly able to draw parallels between their experiences. In such a case as foster care, it appears for these children that being able to observe the carer being kind to the animal and caring for their needs was an important indication of the care they would receive in turn. It provided the children with the confidence that their carer was able, willing and capable of providing sensitive care. This alone instilled confidence in the children, predominantly at the point of placement transition, but additionally as ongoing reassurance regarding the longevity of the care.

Fawcett and Gullone (2001) cited the particular presence of this phenomenon within childhood samples, explaining the fascination and attraction of animals for children, as a significant factor in their positive perceptions of those who care for the animals. They called for further application of these ideas to intervention programmes, yet there have been very few specific circumstances where the evidenced influence of animals has been utilised widely. Thus, foster care seems an appropriate arena in which to call for the implementation of these facilitative relationships, given the importance of the child-caregiver relationship in the development of positive mental health. These results can serve as a supportive call to action from the foster services.

The animal as a catalyst for interactions

A distinct theme arising from the children's experiences that supports the idea of a 'softer' environment (Levinson, 1969) is the ability for the children to engage with the adults from a safer distance; able to enter into conversations without disclosing details about the self (Parish-Plass, 2008). Sam's carer, Sheila, suggested: "*...the animals have helped her a lot here. She immediately had someone to bond with without any awkwardness. She started talking to us about the animals before she stared talking about us or asking questions about the house. I think it broke the ice and it meant we always had something to talk about and to do together*" (Final Interview).

Through regular caring for the animals, the children were afforded opportunities to engage in caring experiences with their carers. Ash noted: "*I like it that all three of us can do things with Scruff…the hairs on his belly get really long and we have to cut them…so Rich and me have to play with Scruff while Gilly cuts them*" (Ash: Final Interview). Sharing connecting experiences is important for decreasing the perceived distance of the caregiver's affections for it provides opportunity for the child to learn about the caregiver and to navigate emotions whilst processing interactions. About her first evening in the placement Ash said: "*We sat for a long time talking about Gilly and Rich and Scruff and what they do. I didn't tell them much about me, but we played a lot with Scruff" (Ash: Final Interview).* These depictions speak profoundly to the behaviours of secure-base modelling to which Schofield and Beek (2009) described.

Further to this, the animal's presence provided routine behaviours, such as feeding, grooming and walking. These routine behaviours offered a set of consistent daily interactions that brought the child and foster carer together to complete the tasks - *Cooperation*. Indeed, the consistent protocols for when these tasks took place afforded the children a sense of responsibility from which, six of the eight children derived confidence, felt trust from the carer(s) and vitally important self-esteem enhancements. In accordance with Schofield and Beek's (2009) secure-base-parenting model, these

interactions were one of the most prominent platforms on which the children derived a sense of *family-membership* – they were taking part in key familial roles for which their engagement derived satisfaction and reciprocal love. Critical to the development of secure representations is how the development of autonomy heightens self worth, thus enhancing perceptions of the self alongside perceptions of the caregiver.

Fine's (2010) publication details much research about the facilitative effect of animals on human interactions and there is good reason to highlight the pertinence of such ideas to children entering foster care. Research indicated that social communications and positive interactions, coded as smiling, gesturing and talking, were elevated by animal presence (Fawcett & Gullone, 2001). This effect was most noted by the children at the point of entry to their foster home. Jessie stated: "*She [Lucy] was dead kind to Tex and was always saying nice things to her and never getting mad at her. She seemed real friendly so I could tell she was going to be nice to me too*" (Jessie: Final Interview). Serpell's (1983) investigation highlighted that observers perceive people in the presence of animals more positively even without direct interactions occurring; the mere presence of an animal was enough to promote feelings explicated by participants as openness, friendliness and honesty. Contrary to this, some findings from this sample suggest the importance of positive interactions between the observed person and the animal, and that simple presence was not enough to infer positive affect. Indeed, the lack of control group within this investigation makes it impossible to suggest the animal's presence alone made any difference; rather it notes the importance of specific interactions and observations on the relationship developments.

Responses also indicated participants' assumption that other people were more caring toward others when in the presence of an animal, although contemporary research has suggested the specific interactions may be more influential than Serpell (1983) first thought (Martin & Farnum, 2002). These children suggested the specific interactions influenced their perceptions of their carers in multiple ways. Ash said: "*I could just tell*

that Gilly and Rich were nice people because when we were doing something in the house they would keep checking that Scruff was ok. Like Scruff didn't need to keep going to them all the time because they would check up to see if everything was alright." She recalled the interaction as an important moment for seeing her carers more favourably as: "*they are always really nice to Scruff and they talk to him and cuddle him a lot. It's nice talking to him and they kept saying nice things to him and I could tell they just wanted to help him" (Ash: Final Interview).*

In more specific circumstance, Levinson (1969) noted the dramatic influence of his dog's presence on clients during therapy, suggesting that individuals felt more comfortable discussing difficult issues and previously unreachable clients became animated and engaged with therapy sessions when Jingles (Levinson's dog) was present in the therapy room. Previous attempts to explain this process have come from learning theory (c.f. Brickel, 1985) and made attempts to understand the anxiolytic effect of animals. With these findings in mind, foster services cognisant of Lee's (2012) therapeutic suggestions, may conceptualise the foster environment as a potential site of ongoing therapy.

Learning theory suggests that pleasurable experiences are self-reinforcing and thus more likely to be repeated in the future. In the same way that pleasurable experiences are self-reinforcing "avoidance of pain and discomfort provides a negative reinforcement by assuring minimal exposure to the painful stimulus" (Kruger & Serpell, 2006 p.27). Brickel (1982) suggested that animals could serve to buffer emotions and deflect attention from an anxiety-generating stimulus. Such interference allows for self-monitored control over exposure to the stimulus rather than withdrawal and avoidance (cited in Kruger and Serpell, 2006 p.27). Thus theoretically, repeated exposure to the distressing stimulus through the animals diverting properties coupled with the nonaversive consequences could lead to the reduction or eventual extinction of the anxiety. In attachment terms, the animal's presence may reduce the potential negative

affect of the human-carer and divert attention whilst soothing the activated attachment system and offering more gentle and progressive exposure to a human-human relationship at times when the attachment system is activated. This has important consequences for foster placement transition. Stovall-McClough & Dozier (2004) identified that early security within infant-carer dyads was the most influential factor of long-term security, and thus an animal's facilitative function of human-human relationships in this manner may well increase the likelihood of more secure organisations being constructed sooner than a more threatening human-human only dynamic. Stovall-McClough and Dozier (2004) pointed out that insecure children were more likely to avoid the care provided at times of distress, but such negative perceptions appear (a) dampened by the presence of the animal and (b) through observation of the interactions between the carer and the animal (Parish-Plass, 2008; Sable, 2012).

Animal promotes calm / reduces stress.

Physiological research within anthrozoology has indicated the somatic influences of animal presence on humans, with frequently presented findings of decreased stress indicators (Friedmann & Tsai, 2006), reduced blood pressure and heart rate, alongside elevated levels of positive neurotransmitters, such as oxytocin, associated with bonding and positive affect whilst in the presence of animals (Friedmann & Tasi, 2006). It has been through recent research into human-animal attachment that Zilcha-Mano et al (2012) highlighted the somatic implications of attachment figure presence on stressful task performance, reporting decreased arousal and increased performance when in the physical and cognitive presence of a animal attachment figure.

Such influence was noted within the sample. Dana recorded: "*I feel when I am with Socks he makes me feel calm and then I can relax and think much easier" (Dana: Diary Entry)*. Similarly, Robin said: "*I find it easier going to Zak cos I don't know, I don't have to talk about stuff as much, I can just think about it, plus, plus she makes me*

feel really calm and she empties my head of stuff when I get all confused and worried. I'm not very good at sorting my own head out so I like to get away from everything or if I can, go and sit with Zak and then everything slows down and I like that. I cant do it with people cos they're like waiting for you to say something or waiting to say something to you. I like that Zak is more easy than that" (Robin: Final Interview). This extract is used for a second time to illustrate the calming influence of the animal and develops the point further to the safe-haven elements described previously.

That the children noted calming influences from their animal was one positive aspect of their interaction but in addition, these children remarked at how their feeling calm assisted their interactions with their carers. Robin explained: *"When I have a problem and I feel all funny, Zak helps me with feeling better and slowing down, and then Trudi helps me work things out if I cant do it on my own" (Robin: Diary Entry).* Alex commented about her talking to McCavity when she was worried: "*I like talking to Mary too. But sometimes this side of me gets confused and I don't know how to say what I want to say…I find it easier when McCavity is around cos I feel much slower in here and then I can talk with Mary better" (Alex: Final Interview).*

Literature from animal-assisted education, animal-assisted therapy and rehabilitation programmes in correctional facilities, medical centres and geriatric care have highlighted the positive influence of animals on attitudes toward the self and toward others (Fine, 2010). Through all these areas, experiencing greater levels of calmness, confidence and relaxation are commonly cited as aiding humans in their challenging environments. Children within this sample appear to be consistent with these previous research findings and have benefitted from placement with animals, with whom the carers position as members of the family unit, treating them kindly and demonstrating caring capabilities through the human-animal alliance (Parish-Plass, 2008). These behaviours are visible to the child, yet as Kruger and Serpell (2006) suggested about animal assisted interventions, it is the point of engagement that is of

greatest interest. Where animals feature compassionately within human relationships there is a marvellous pairing of attributes – a tool that can simultaneously engage and relax the patient (p.26).

Further support from existing literature for why the children appeared to form such close relationships with the dogs suggests the intense involvement with the animals would have brought about an altered state of consciousness (Brown & Katcher, 2001) in which the children were more relaxed, suffered less anxiety and felt valued, loved and needed. The animals within the foster placements helped reduce feelings of anxiety and distress, helping to tone-down the attachment behavioural system that in many of the children rouses psychological experiences of hypervigilance and heavy preoccupation with fending for the self. The presence of the animals reportedly brought about the creation of a much calmer environment through which the carers were able to get closer to the children, and the children were able to allow the carer to get closer and help them to alleviate their distress; the children's perceptions of the carer's intentions were influenced.

These findings corroborate past conclusions by Melson (2001) and offer a new site – foster care – in which to consider the influence of animals on humans. Melson (2001) suggested that sharing experiences with animals helps on two dimensions: First it decreased arousal and second it facilitated sustained attention, initiating the chance for individuals to experience new possibilities within human-human relationships. Children may experience, observe and partake in circumstances of unconditional love, models of good nurturing and sensitive care both from and of another being. As Kruger and Serprell (2006) tenaciously convey, many of these benefits are afforded in response to the de-arousing and de-stressing effect that animals can have on humans. Serpell (1996) had previously pointed out that any stimulus to which a person is attracted can cause a concentration of attention, resulting in a calming influence of the body and mind, yet the ability of social animals to not only calm, but concomitantly engage the individual is a

noteworthy advantage of human-animal relationships, and one that is evident within this sample's reports.

Jessie said: *"If I need to think I sit and stroke Tex cos then I can think better. When I first came here Lucy and me would sit for ages and stroke Tex. Sometimes we would talk about stuff" (Jessie: Final Interview).* In similar form, Robin's carer, Trudi, explained: "*When we all sit on the sofa and chat and watch TV and things like that, and he doesn't seem in a rush to get away and do something else" (Final Interview).*

Sam's carer, Sheila, noted that: "*she uses them as an excuse you know – Sam asks us hypothetical's about how we might do things for Fido and I think she's really just asked us about what we'd do for her, but we always just keep it about the dog. When we're cuddled up on the sofa and having what we call 'family time', that's when she tends to ask. She stares into space and just asks us all these questions and then sits and gazes into Fido's eyes as we're talking to her" (Final Interview).*

Previous research (c.f. Kurdek, 2008) found relational behaviours between humans and animals to be most salient in the domain of proximity maintenance and secure base. The nature of care-giving bonds is such that proximity maintenance alone does not qualify as evidence of an attachment, yet the existence of a secure-base and safe haven utility within the relationship may warrant acceptance as an attachment relationship given these are essential defining features of attachment bonds (Bell & Richard, 2000). **Accordingly, this investigation suggests that safe haven features are perhaps the most salient of the human-animal relationship for children in foster care**. This makes sense within a specific population who are likely to have insecure working models in relation to other people given their previous life experiences. Smolkovic (2012) indicated how certain circumstances might increase the likelihood of persons positioning animals as attachment figures and these findings suggest individuals in foster care may well be one of those specific populations.

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A central tenet to this theoretical assumption that animals may facilitate the revision of working models in relation to humans is the understanding that animals are able to circumvent the relationship blocks established by an insecure working model (Zasloff, 1996). Animals are not necessarily subject to these pervasive assumptions (Sable, 2012). They may therefore, be able to enter an insecure individual's attachment network with greater ease, owing to their open, unthreatening, attention seeking natures that offer as well as take love, affection and positivity; the human-animal relationship can be simple and safe, with minimal risk (Nebbe, 2001).

Parish-Plass (2008) highlighted some critical features of an animal's presence that may facilitate and support the development of human-human relationships. Individuals who have a compromised attachment and who see other people negatively and have internalised a learned pattern of mistrust are afforded an opportunity to rework those perceptions and learn positive models of trusting an 'other'. Through the interactions of a consistent, supportive other with an animal, it is suggested that the 'observer' is inspired to trust through a greater feeling of acceptance (Schofield & Beek, 2009). This is what Levinson (1969) was referring to by a 'softening of the environment,' for it reduces some of the anxiety around a direct human-human interaction. In time, this can enable a "working connection" (Parish-Plass, 2008 p.17) through which the future human-human relationship can occur.

Additionally, animals may facilitate a human-human relationship by reworking an individual's perceptions of another figure's actions and intentions (Fawcett & Gullone, 2001). If the other is caring toward the animal then the child may bare witness to incongruous emotions and behaviours (incongruous with their perceptions of the other, i.e. their working model) that require the rethinking of one's learned expectations. Through the practice of mirroring, modelling and reflecting upon observed experiences, alongside practicing newly learned or observed behaviours with the animal, it may access the representations that influence the individual's emotional and behavioural

responses to their own feelings and the feelings and actions of close others (Boggs, Tedeschi & Ascione, 2011).

Sharing a living space with an animal that provides repeated interactions and experiences is also likely to cause an increase in the individual's self-esteem (Boggs et al, 2011). Learning how to love and be loved, and recognising that others 'need' you and 'want' you, has been found to lead to feelings of elevated importance, and self-worth (Schofield & Beek, 2009). Self-esteem is important for meaningful social interactions and for perceiving others in a positive manner. Therefore, through increasing self-esteem as a result of being with an animal (Fine, 1999; Messent, 1983; Parish-Plass, 2008; Sable, 1995; Sanders, 1999; Serpell, 1983) it is theoretically logical to suggest that an individual will develop feelings of being worthy of love and of deserving empathy that they will seek revised interactions from other people (Boggs et al, 2011). Due to their elevated self-esteem they are also more likely to be perceived positively by others and thus the positive, pro-social and incongruous-with-a-compromised-internal-working-model behaviours could lead to a greater chance of attachment development (Dykas et al, 2008). The children in this sample convey circumstances where their perceptions of self are enhanced through interactions with their animal relationships.

Of importance to secure attachment development are the feelings of safety, being cared for, valued, loved and wanted. Insecurities can cause an individual to lack these positive emotional states and to perceive life as painful, burdensome and something they must endure alone without being able to rely satisfactorily on others (R. Bowlby, 2004). Parish-Plass (2008) also suggests that animals can facilitate the working through of these problems. They can help an individual "work through the salient and threatening issues concerning their difficult life situation" (p.17). If this is done through the help of another adult, who is sensitive and appropriately comforting, then the individual with a compromised attachment may well start to perceive the vicarious human relationship as something that is also trustworthy, reliable and safe (as that with

the animal) (Levinson, 1969; Parish-Plass, 2008), something readily supported in more recent research in the field of equine therapy (Boggs et al, 2011).

Indeed, social animals such a dogs respond to human emotion with visible effect (Hare, 2007). If a child expresses emotion then the animal responds accurately to that emotion affording attuning experience. To the animal this may be simple communication of mood, mirroring that of the emotional creature, however to the human this can serve to act as an attuning experience, validating one's felt emotions and teaching the individual that their feelings and behaviours are being recognised by a considerate other (Stern, 1985). Further, with such attuning experiences and emotional validation, an individual is well placed to model novel behaviours in light of their emotions, correlating emotions with appropriate behavioural expression, and learning the outcome of such behaviours (Duck, 2007).

If we conceive the 'family' as a homeostatic system of relationships between individuals then perhaps we can consider the presence of a social animal, both the target and seeker of relationships, as a key player within that system that serves to offer an adhesive function between members at markedly different stages of development and aid them in their sharing of set goals aimed at terminating a specific form of proximity-seeking and promoting secure exploratory behaviours.

The animals were instrumental in the children's perceptions of the caregivers that as relationships were established with the animals, so too were relationships with the human carers. Accordingly, available, co-operative, sensitive relationships with the animals and the carers provided a more family-oriented environment that brought about elevated levels of felt security. This idea of a cohesive, united approach aligns with the Circle of Security intervention (Hoffman et al, 2006) and others such as Secure Base Modelling (Schofield & Beek, 2009).

(B) Switching

I now present the notion of *switching* and explain this as the process by which the child learns enhanced relational capabilities (Emmens, 2007) that later get *switched* from the animal relationship (specifically) to being employed within the human relationship with their carer(s).

The AAQ measure utilised with this research is the first to track attachment relationships longitudinally and repeatedly within foster care. Of great value is the understanding these findings enable about changing perceptions of relationships over time, particularly through the additional qualitative evidence provided by the children's explanations of relationship perception alterations. This is important for understanding precursors to working model revisions. Evident throughout the data sets are the large size of the radar charts depicting child-animal relationships. The larger the graph, the higher the level of security within the relationship and for five of the children much greater security and stability is demonstrated in the child-animal relationships, suggesting that early relationship formation is easier [for these children] with an animal compared to with another human (Smolkovic, 2012).

Children discussed relational components at the point of entry in to their placement, deriving these from their animal-relationship because of difficulty realising them through their human relationships, yet as their time in placement extended, the children became more able to turn to their human carers for these relationship attributes, which had previously not been possible. It is this point of being able to switch relational perceptions from the animal to the human carer that is now discussed. It is acknowledged that in time these children would likely develop trusted bonds with their carers, but this concept of switching suggests that animals may possibly be able to accelerate this process.

That children were able to establish secure relationships with the animals and derive felt security from them is a key element in the formation of a positive perception

about the self in relation to others (Kruger & Serpell, 2006; Smolkovic, 2012). That the revised-AAQ scores suggest the development of security over time towards the human carers, and the diaries and interviews suggest the animals helped reveal reasons why the carers were nice people, suggests that relational capabilities were enhanced (Emmens, 2007) through these initial earlier relationships with the animals.

Once an environment had been established in which the child felt safe and familiar, and the attachment system had experienced both reasons and time to tone-down, there appeared a climate in which children felt better able to move their enhanced relational capabilities (Emmens, 2007) into the human-human domain with their carers and access the secure representations available through these people. This is something I refer to as the switching process.

King, Rowe and Leonards' (2011) research offers pertinent insights to explain the development of the relationship between the child and carer prior to the *switch* occurring, and using this research it is possible to place the animal at the centre of that process. King at al's (2011) research identified the relationship between sender and receiver visual cues, demonstrating that "joint attention and sender trustworthiness are closely linked in influencing object evaluation" (p. 482). The children's reports and diaries readily demonstrate a deep level of trust within their human-animal relationship and thus observation of the trusted animal gazing at the carer (thus carer's interactions with the animal are vitally important for observational learning) arouses the feeling of "I trust you; hence I like the things you look at" (King et al, 2011 p.476). In this sense, the child is observing the carer not only in novel care-giving circumstances that are incongruous with their working-model's expectations, but they are seeing the carer through the eyes of another trusted relationship partner; the influence of this being of great importance to the children's interpretations.

Such understandings about the importance of the carer- animal interaction lend themselves to explaining not only the direct observational learning processes of the child

watching the carer provide care to the animal, but they also facilitate the reverse effect; the animal enjoys the carer and through this attunement the child infers trust and affiliation to the carer in turn.

Perhaps most prominently, Dana explained this: "*I heard Rose telling Socks to be nice to me and not to feel jealous because she still loved him. She said that I seemed really nice and that she wanted to get to know me. I sat on the stairs and listened and watched her though the rails. It made me feel funny in my tummy when she said those nice things. And when I saw that she was talking to Socks I liked it. So I started talking to him too" (Dana: Final Interview).* As already noted, Jessie's carer, Lucy, indicated that he would observe the interactions between her and the dog "with eagle eyes." She said he was particularly interested in observing her interactions with the dog and how she treated her.

Winnicott (1951) introduced the term 'transitional object' to the field of therapy and referred to it as an object that alleviates distress by serving a comforting function. This concept is evident through the children's descriptions of the animal as a safe-haven to which they turn at times of distress and suggests there is something prevalent in the child-animal relationship that helps soothe and divert anxieties within the human-human relationship until a trusted rapport has been established.

This is not to say that animals serve their function *only* as transitional objects within foster care, for by its nature, a transitional object is temporary unlike an attachment bond that is long lasting. The meaning of the child-animal relationship appears not to lose meaning in the wake of the developing human-human bond. Kruger and Serpell (2006) explain how: "the purpose of the transitional object is to act as a bridge to a higher or more socially acceptable level of functioning, not to serve as a substitute for failed or inadequate human-relationships" (p.30). It is difficult to argue this with inanimate objects, but perhaps owing to poorer social networks the animal

remains prominent in the children's attachment networks (Smolkovic, 2012) following the switch of affections onto the carer.

Cognitive theory also offers understandings that might explicate the influence of the human-animal bond on relationship development with the foster carers. Cognitive theorists place emphasis on the relationship between an individual's cognitions, behaviours and the environment, and posit that positive amendments to self-perception ultimately influence behaviours, and those behavioural changes bring about an altered engagement with the environment, inclusive of its social relationships. Fine (2000) explained that animals are particularly suited to facilitating this development because of their unambiguous and easily understood responses to pleasurable and aversive stimuli.

This might impact upon the development of human-human attachment bonds as such relational development directly with and indirectly through the animal serves to update the child's perception of themselves, of their carer and of themselves in relation to their carer, for they are afforded novel experiences that contest the engendered expectations biased through their earlier learning experiences. Attachment theorists explain this revision process to be the result of incongruous experiences that render existing insecure working models redundant (Ainsworth, 1969; Bowlby, 1969). This concept speaks to foster care professionals and social workers. The notion of a relational character that not only supports children in their foster placements, but one that facilitates important attachment focuses upon the caregiver is valuable knowledge for those seeking to support troubled children. That an animal can first become a figure of attachment, and subsequently enhance both the speed and the way in which the foster carer might become a figure of attachment should excite those involved in the fostering process. Further, much like secure working models, the animal may be conceptualised as a living prime that serves to remind children about the caring properties of their foster carers.

Anomalies within the Data

It is important to indicate and explain where possible, data that is not in accordance with the majority. Thus, there are a number of anomalies within the data set that ought to be discussed. First, Alex rated her relationships with her carer and with her current companion animal on the AAQ scales; however, this is not reflective of her current placement relationships from the commencement of the placing. Alex's carer, Mary, had a dog whom Alex regarded as her: "*closest friend cos he would know I felt and he would always be nice to me and he would come and look for me*" (Alex: Final Interview). Of her entry to her placement she said: *"I really liked Mary because she was nice to the dog but I liked him cos he made me feel better and he was nice to me right away. It didn't feel funny like it does with new people when you don't know them*." That dog passed away during the course of Alex's placement, prior to the start of this investigation, causing Alex to be very upset and prone to more intense angry outbursts. Mary suggested this provided them with an opportunity to talk about the loss of relationships and to discuss other relationships that Alex had previously lost as a part of being taken into care. Shortly after the death of her dog, Mary welcomed McCavity into her home. Thus, Alex rated her relationship with McCavity even though he had not provided a relationship of equal duration to her foster carer.

Alex also raised a second controversy within the data set, for she admitted to providing what she thought were socially desirable answers in her seminal, supported AAQ rating. Nederhof (2006) indicates that researchers need to be aware of socially desirable responses as either (a) self-deceptive or (b) other-deceptive. In the case of Alex, her sudden adjustment from revised-AAQ1 to AAQ2 was explained as an embarrassment of admitting that she talked to the animal and found comfort from her animal. This is offered as explanation for her AAQ1 anomalous scoring.

Charlie presented an anomalous result regarding the quality of relationship by comparison of her carer, Sue and animal, Storm. She rated her relationship with Storm

as less available than her carer. That Charlie did not perceive Storm to be as available as Sue does not indicate an absence of attachment or attachment facilitation, as attachment functions were described within her interview: *"I feel dead close to her you know. Like she's the easiest person [dog] in the world to like. She makes me feel safe and I know she's always there for me when I need her"* (Charlie: Final Interview). Charlie also added: "*When I have a real problem though, and I need help with it, she can't help me with it, and so I go to Sue instead cos I know she'll help me feel better. Always can that one*" (Charlie: Final Interview). However, it is suggested that this indicates the limited capacity of this animal as an attachment figure by comparison to her foster carer.

Interestingly, Charlie noted the facilitative effect of the animal at the point of placement transition. She said: "*when I first came here I liked being with Storm and it made it easy to talk about. And first right, when I was here, Sue was real nice because she was dead kind to Storm...when I first came here I liked Storm more than I did Sue…cos when I am worried she made me feel better…but now Sue is best and Storm is second, and then maybe [teacher] at school…I like Sue better now cos she can talk to me" (Charlie: Final Interview).* Sue herself reported that: "*She used to just sit and watch the dog and she'd do that for hours. When things were real bad for her she'd be a real recluse and sit out there with Storm and almost day dream…I think Storm helped her get closer to me because it was something to talk about and we would care for the dog and do it together and then I would help her out with her issues. I think it helped in that sense" (Final Interview).*

Conclusion

Bowlby's theory predominantly described developmental and interpersonal issues, but the association between the attachment system and reactions to life stress is also one of the fundamental pillars of the theoretical framework. First, the origins of attachment theory lay in organising animal and human reactions to loss and separation. Second, attachment processes between child and caregiver were proposed to serve a protective function during encounters with threatening situations. Third, the seminal empirical test pertaining to attachment theory – the Strange Situation Test – was conducted under the assumption that internal working models determine one's reaction to two basic stressors – maternal separation and the presence of a stranger – something of particular poignancy for foster care. Fourth, the sorting of insecurely attached persons into categories of ambivalence, avoidance and disorganisation, reflects the idea that attachment working models incorporate defensive strategies that guide people in coping with the specific stresses of their environment (Mikulincer & Florian, 1998 in Simpson and Rholes).

This research examined and sought to understand the lived experiences of children in long-term foster care highlighting the processes of developing new attachment relationships. It thus offers qualitative extensions to Stovall-McClough & Dozier's (2004) quantitative investigations with infants over the first two months of placement. This research employed the theoretical assumptions of attachment theory (Bowlby, 1972, 1980) to understand the development of relationships between children and the carers and animals within their living situations. This research contributes to the literature a further understanding of human-animal attachment through explication of the extent to which those relationships might (a) exist and (b) develop within a population for whom attachment relationships are highly likely to be compromised in light of previous life experiences (Crittenden, 1985; Stovall-McClough & Dozier, 2004; Unrau, 2008). Much of the previous human-animal attachment literature has employed quantitative assessment measures that attempt to demonstrate numerically the

significance of human-animal attachments by comparison to human-human attachments. This research differs in its provision of detailed, qualitative understandings about *how* animals may be perceived as figures of attachment.

The investigation employed case-study methodology and utilised a re-worked version of West et al's (1998) Adolescent Attachment Questionnaire (AAQ) with modifications cognisant of Rowe & Carnelley's (2008) and Aron, Aron and Smollan's (1992) suggestions regarding adolescent's articulations of felt emotional connections to others. The revised AAQ was administered at o, 4, 8, 12, 16 and 20 weeks, enabling a profile of change over time (Unrau, 2008). In addition, children maintained longitudinal diaries on a weekly basis and the contents of those were guided to tap behaviours and relationship characteristics in times of need or distress (Bolger et al, 2003).

Following the longitudinal methods of data collection, children were interviewed to further explore the contents of their diaries and revised-AAQ charts with the intention of accessing more detailed information pertaining to their relationships with carers and animals. Interviews and diaries were thematically analysed in accordance with Kwong & Bartholomew's (2011) defining features of an attachment bond and blind-check coded for inter-rater reliability. The revised-AAQ charts were compiled with time-reference, enabling clear depiction of relationship attributes that deteriorated, remained stable or improved over time (Smolkovic, 2012) and this is the first time such research has been completed with children in long-term foster care through the theoretical framework of attachment theory. Changes were qualified by the sample during the final interview process to aid understanding about precursors to relationship developments.

Central to the formulation of this research investigation were the relationships of the children who agreed to participate in the project. Morrow (2009) outlined the importance of not disturbing the research site beyond the timeframe of the investigation. However, in the investigation of relationships one necessarily draws attention to

interactions and relationship developments when investigated over such a period of time. Accordingly, every effort was made at the culmination of the project to ensure the children were left as sensitively as possible. The researcher, the foster carer(s) and the social workers were present to thank the children for their time and efforts in participating and the onward processes of analysis and communications with the foster agency were re-explained. The most impacting method of data collection was the repeated diary and each of the children expressed their desire to continue with the diary maintenance and this was accepted by the carer(s) and the social workers as it had been requested by the children themselves. Children were made aware the diaries would no longer be written for the research project and would purely be for their personal venture.

Sudefeld & Pennebaker (1997) explain how diaries aid the respondent with critical reflection about the events they recorded. Though the project sought to leave the children just as they were found, it was acknowledged that participation could not be forgotten and there were processes and experiences as part of this research that may very well have influenced their relationships with carers. This idea of critical reflection appears to have assisted these children as they each continue their diaries beyond the completion of the investigation and use these to focus on positive happenings in their living situations. The diary has provided a form of "ongoing therapeutic value" (Sudefeld & Pennebaker, 1997). Thus, I have left the children from the research in a way that *is* different from when the investigation started, but with careful consideration to eliminate negative implications of my departure.

That the children continue to engage their diaries through choice is a positive sign that participation during the research was not only authentic, but of positive benefit to the children, providing them an alternative outlet through which to consider and record the prominent moments in their lives and foster placement relationships.

Key Findings

This research has demonstrated that certain animals (seven dogs and one cat) became figures of attachment for children living in long-term foster care. All eight children developed attachment relationships with their animals as per the precedent of Kwong and Bartholomew's (2011) utilisation of Hazan and Zeifman's (1994) defining features. All eight of the children reported stable or more secure relationships with at least one carer over time, as evidenced through the revised AAQ charts and the qualitative diaries and interviews. This is an important discovery for foster care to identify the success of placements and whether relationships are stable or on regressive or progressive trajectories. Smith et al (2001) suggested the relationships of fostered children are at great risk of deterioration, thus being able to identify those that are stable or progressive is a positive finding for these children. It provides vital evidence for maintaining their current placements and contributes understandings for the foster carers about how their behaviours are perceived by the children in their care. Of note, the qualitative measures suggested the animals more readily offered basic attachment components to the children as they entered their placements, faster than their human carers.

The research demonstrated that the animals performed a facilitative function, altering the psychological climates of the children and preparing their internal and external perceptions to build more stable attachment relationships with their carer(s). These findings further suggest that in the early stages of foster placements, children are quickly organizing their behaviour around the care provided by those in their new home. Children observe and learn to respond to the responsivity very early in the placements and where animals were concerned, they were also included in the organisation of responsive others. The facilitative function of the animals occurred in two forms: (1) A *softening* of the environment (Levinson, 1969) through which the child perceived their carers and others in a more secure fashion, contributing in part to Schofield and Beek's (2009) secure-base parenting model, and (2) through the process of *switching* whereby

the animal provided the early (and lasting) platform on which to develop secure representations, which were later *switched* onto the human carers once a safe psychological relationship had been established and relational capabilities had been enhanced (Emmens, 2007). It may also be hypothesised that organisation of carer behaviours takes longer due to the complexity of interaction and influence of prior working models (Stovall-McClough & Dozier, 2004). The animals facilitated ongoing support by fulfilling the function of a living prime that served to regulate emotions and provide secure base and safe haven features as the child learned to navigate their new human-human relationships with a revised working model and thus adding new secure representations to their attachment networks.

The investigation has contributed new understandings to the literature regarding human-animal attachments within the context of long-term foster care. It has also offered research structure that enabled the monitoring of attachment relationships and observation of subsequent attachment-related developments over time, a concept that is much more useful developmentally by comparison to snapshot measures (Smolkovic, 2012). Such a model from the children's perspective, as Unrau (2008) suggested, is an important consideration for understanding the internal experiences of children whose lives are at the very centre of fostering processes.

Applications of this Research

Theoretical Advance

At a theoretical level this research speaks to academics from the field of attachment theory, particularly those within the contemporary research realm with interests in human-animal attachment (e.g. Kwong & Bartholomew, 2011; Noonan, 2008; Parish-Plass, 2008; Sable, 2012; Smolkovic, 2012; Zilcha_Mano et al, 2012). It offers qualitative evidence that children in foster placements *can* conceptualise their animal companions as figures of attachment and that such relationships may be considered true

attachment bonds in their satisfaction of all the defining features outlined by Hazan & Zeifman (1994).

Specifically, this investigation contributes advancement to the social-psychological branch of attachment theory having followed research methodology that contextualizes the observed relationships in a socially constructed manner. By employing self-reviewed, self-report measures through the revised-AAQ and diaries, alongside inductively analyzed interviews, the data collected has been cognisant of social-psychological understandings of attachment relationship measurement.

This research also offers advancement to attachment literature when understanding the processes of *accommodation* (Bowlby, 1980), providing qualitative evidence regarding environmental and interactional factors that influence the revision of working models. Attachment literature has been mindful of the pervasive nature of working models, both secure and insecure, and the implications of insecure working models for the development of new human-human relationships. These research findings offer evidence to suggest animals might become figures of attachment more readily than humans for some children with a greater tendency toward attachment insecurity and provide a platform from which to learn enhanced relational capabilities that later support the revision of their working models in relation to humans (Emmens, 2007). Indeed, such understanding advances attachment understandings about *how* children in foster care reach out to their carers in times of distress. Stovall-McClough & Dozier (2004) detail that younger infants are more likely to reach out to and be soothed by foster carers, but that older individuals are more likely to withdraw from a new caregiver when they are hurt. For this reason, understanding the utility of human-animal attachments for slightly older children in foster care is a potentially vital aid at providing a buffer against the difficulty of turning to a new caregiver when in need of soothing.

Contributing to the bridging of theory and practice, this research contributes markedly to the secure-base parenting model presented by Schofield and Beek (2009)

that is instrumental in foster care training procedures. Schofield and Beek highlighted the important function regarding the interconnectedness of the features within their secure-base parenting model (Availability, Sensitivity, Acceptance, Co-operation and Family Membership), noting it is the "combination of these dimensions that facilitates progress in relationships and functioning" (p.259), and thus the findings of this research extend their model by offering facilitative suggestion as to how their components might be more readily supported.

Additionally, this research contributes to anthrozoological literature, offering conceptualization of a utility relationship for relational interactions between humans and animals. It supports existing anthrozoological literature regarding human relationship facilitation (e.g. Parish-Plass, 2008), but offers a new context within which to consider facilitative human-animal relationships, applying understandings from Animal Assisted Interventions within the realm of attachment-relationship develop in long-term foster care.

Measurement Advance

Enhancing Children's Self Report

The measurement tools utilised within this research advances attachment measures within the paradigm of social psychological investigations, particularly for samples within middle-childhood. By combining a repeated longitudinal scale that concomitantly establishes relationship-relativity (now employed by the private foster agency), these measures enable researchers clarity and insight when observing attachment relationship development over time. What is more, this amendment to West et al's (1998) AAQ derives information that is reviewed by the children owing to the relative nature of relationship scrutiny, and is conveyed by each child according to the constructions and understandings of their own experiences. Measures from social psychological approaches have not before considered the relationships of children in foster care in this

manner and as such have produced and made use of snap-shot measures (e.g. Smolkovic, 2012; Unrau, 2008).

Hoffman et al (2006) stated that attachment interventions must be individualised, to account for individual differences and specifics of required care giving to address past-difficulties. The methods employed here responded to that call, and were mindful of the need to individualise understandings of attachment relationships and thus accordingly, the revised-AAQ scales are not standardised in their capacity (this was indicated by Child 1 who noted her desire to extend the scales in reflection of her improving relationships). Acknowledging the interpersonal differences she did not rate all relationships equally by placing them on the extreme end of the scale, rather she sought to demonstrate the relative differences between them. This is important assessment advancement for understanding attachment networks and hierarchies.

Research that has attempted to perform longitudinal investigation has notably employed a before-after measurement to demonstrate change over time. This is not without its pitfalls for particularly when assessing insecure attachment, fluctuations in attachment system activation will likely be reflected in those measures. This investigation has advanced those measures by providing an assessment tool that taps the processes involved in those changes, gathering responses from the participants that explicate the precursors to the revision of their particular attachment relationships. I am mindful of IJzendoorn, Juffer and Duyvestyn's (2006) assertion that it is not possible to infer *representational* change through the charted *behavioural* changes. However, in this context, supported by the diary and interview methods, it has been possible to infer representational changes through the disclosed information from the children. That is not to say specific styles of insecurity have been noted, rather the development towards more secure relationships has been tapped. In conclusion, this thesis has contributed a mixed-attachment measure that is situated within real-life scenarios: a pertinent measure

for understanding children's relationship development within the care system through the words and actions of the children themselves.

Practice/Policy Advance

How Foster Care can Respond

Schofield and Beek (2005) commented that 'attachment theory continues to offer a scientifically rigorous and yet practical framework for making sense of children's troubled and challenging behaviors and for supporting caregivers in providing them with a secure base'. This research speaks at a granular level to social workers that are interested in understanding children's perceptions of relationship development within long-term foster care. It speaks to foster carers interested in understanding the relationship between their behaviours and the children's interpretations of their care-giving actions. It also speaks to policy regarding a potential to utilize animals within foster homes (returning to BAAF's former considerations).

This research investigation offers support for the concept that caregiver behaviour is important to the development of helping foster children develop more secure attachment representations. In accordance with Marvin, Cooper, Hoffman and Powell (2002), this environmental intervention combines both educational and therapeutic suggestions – that carers ought to be educated further about the importance of their behaviour, and that animals may well provide the therapeutic platform on and from which intimate relationships can be explored. This concurs with Lee's (2012) assertions that foster care, in order to advance its efficacy, needs to be considered a twenty-four-hour therapeutic environment that understands the children and their experiences, and endeavours to help, where necessary, repair troublesome past relationships rather than focusing most prominently on repeatedly starting anew. Mindfulness of the specifics of the child-caregiver relationship will offer greatest

understanding as to how the child might be most assisted at moving towards more secure attachment representations (Hoffman et al, 2006).

That the children in this research appeared to form strong and positive attachment relationships with the animals in their home is consistent with previous research for at risk populations (Emmens, 2007; Melson, 2003; Smolkovic, 2012). Previous evidence linked a higher likelihood of pet-attachment in cases where individuals had fewer social networks (Stallones, Marx, Garrity & Johnson, 1990) and elevated experiences of negative life events (Brown & Katcher, 1997). Both policy and interventions designed to assist children in care situations can benefit from these understandings and use this knowledge to help establish a care giving environment in which children have as much chance as possible to experience positive relationships.

Indeed, as Schofield and Beek (2007) suggested, most children entering foster care have experienced negative personal relationships and Smolkovic (2012) highlighted that many pet-owning children derive emotional support from their pet *because* of the lack of [perceived] human social support (p.17), supporting Stallone's (1990) findings that indicated depression and loneliness were reduced through pet-relationships but primarily when the human had few other human confidants. The mental health benefits to be gained through relationships with animals are potentially more pertinent to children in this population compared to others with adequate social and emotional support networks (Smolkovic, 2012). Additionally, foster care can make use of these understandings by adding them to the conclusions drawn by Stovall-McClough & Dozier (2004) who highlighted the biggest influence for attachment security over time is the early development of secure relationships. Understanding that the early adjustments to foster care placements have greatest implications for the long term functioning of the child-carer dyad renders these findings essential information for foster placement commencement.

In each of these children there appeared a strong motivating influence - a common theme amongst all their stories, in that they were searching to satisfy their need for a comforting and caring relationship. This is perhaps why attachment theory was a suitable way by which to consider fostered children's relationship developments. The theory considers that a primary *need* of humans is to form attachment relationships (Bowlby, 1973). The children expressed a need and a desire to have a loving, caring bond through which they felt safe, supported and connected to another. The children sought a relationship that validates their existence (Unrau, 2008).

It has been suggested by many (e.g. Fine, 2010; Kwong & Bartholomew, 2011; Messent, 1998; Noonan, 2008; Parish-Plass, 2008; Sable, 2012; Serpell, 1998) that a social animal within a home is a relationship that can help elicit feelings and expectations of warmth, openness and acceptance and this has been evidenced with the reports offered by these children living in long term foster care. Indeed, supporting contemporary research by Zilcha-Mano et al (2011) and Beck and Madresh (2008), this evidence can be used to suggest that attachment measures are an effective way to investigate and understand the existence and function of attachment relationships between humans and animals. Indeed, with the inclusion of animals within West et al's (1998) AAQ, it was found that these children were able to express attachment satisfaction through their animal-relationships. As Beck and Madresh (2008) explain, such results do not contest the assumption that human relationships are, or should be, the primary source of social support. The results simply indicate that animals may be perceived as secure, safe and consistent figures of attachment that satisfy basic attachment functions (Emmens, 2007).

Indeed, consideration of such findings should be critical to informing policy or rethinking the way people are supported in times of distress such as significant life transition or familial dissolution. It also highlights the significant importance of specific

within-relationship working models for supporting the development of more secure attachment representations (Zilcha-Mano et al, 2012).

Limitations

Without the constant practice of (re)asking questions, there is a significant risk of stagnation, which only serves to hamper the development of the literature, yet it is essential that such questioning procedures occur during the undertaking of research projects in order to best guide the current research investigation (Greig et al, 2007). In accordance with this view, it is pertinent to identify the limitations of this research and make sensible and insightful suggestions as to how future investigations may contribute further understanding about the concepts identified within this study. With this in mind I first approach the limitations of this study and for some, offer defensive narrative. Subsequently I make suggestions for future investigation:

(a) Non-Experimental Design

The lack of control or comparison group in this study immediately limits the ability to generalise the current findings outside of this research sample (Hoffman et al, 2006). It would be useful for future research to replicate this study within the parameters of an experimental design to verify that results reflect the effects of the intervention. However, in defence of this research, the predominant purpose of a control group is to offer comparison capabilities against a baseline and this was not the intended aim for this investigation. Each child's experience was considered individually and not through a comparison against a baseline measure. Further, the research did not set out with experimental intentions to prove or disprove the effects of living conditions in long-term foster-care. Rather it sought to understand how and why living with animals might influence children's development of attachment relationships. These findings add

support to the understanding of facilitative interventions that might help children navigate attachment relationships within foster care environments.

(b) The Point of Access

A serious limitation to this research was the available point of entry to the research site. Being able to assess relationship development within a placement, and from the perspective of the child, would best be achieved through immediate measurement from the outset. Yet, ethically and practically it was important for children to establish some degree of familiarity within their placement before the research started. How this might be overcome and still have authentic relationship development occur is methodologically very challenging and thus the methods utilised here were considered a 'best available' option. Theory has shown that memories of attachment components are also influenced by the working models that one holds and thus it could be suggested that of detriment to these findings is the reliance on retrospect for gaining the children's perceptions of relational change since placement commencement. For a more complete understanding it would be vital to enter the foster placement with the child, but both ethically, practically and theoretically this was not possible and would likely lead to more deleterious issues of additional probing relationships.

(c) Investigation Duration

The duration of the study is a limitation to the establishment of more complete relationship trajectories. The allotted time for which the relationships were observed, if extended, would enable observation of more mature relationship identification of long-term influences of animals in foster-care placements. Charting the sample across a twenty-four month period of time would enable a deeper and more detailed depiction of their relationship trajectories (Unrau, 2008). Indeed, these research findings would be supported by further substantiating evidence of long-term effects of this environmental

consideration (Hoffman et al, 2006). This might then offer more detailed understandings about plastic, rather than elastic revisions of working models, and their influence in wider relational contexts, beyond that of the companion animal and the foster carer.

Future Research

This research serves as a springboard for further investigations whilst developing current scholarship on the topics of attachment theory, foster care and anthrozoology. Research is rarely exhaustive and thus, future investigations are considered as extensions to the current enquiry.

(a) Foster Care as Continual Therapy

In light of the details provided by the children it is suggested that foster placements be considered as therapeutic care. It would thus be essential to educate carers about Animal Assisted Interventions, so that children might receive double assistance through (a) a family environment as a secure base (Schofield & Beek, 2009) and (b) therapy to deal with their pasts and loss. This research has clearly indicated the importance of the foster carer's actions and behaviours on the internalisations of the fostered child. The caregiver's actions in general and towards others are instrumental in shaping the child's expectations of care from that person. Thus future intervention-focused research might be wise to investigate programmes that educate carers about their behaviours around the fostered-child, contributing findings in accordance with Hoffman et al (2006), Koren-Karie et al (2013) and Schofield and Beek (2007) who each note the importance of the caregiver's behaviours in relation to children's revision of working models.

(b) Applicability of Animal Relationships for a Different Aged Sample

This research has sought to understand the relationships between humans and animals within a specific age range. While previous research has scrutinised human-animal relationships in wider age brackets (e.g. geriatrics, late-adolescents) the complexity of

developmental change within late childhood and early adolescence perhaps offers greater transitional relationship development than at any other stage during the lifespan. Given the broad range of children living in long-term-foster-care (0-18years), future research would be wise to explore whether these results are replicable with children of differing age ranges and stages of development, to whom non-human relationships might have markedly different meanings. Further, research has suggested that attachment styles are most malleable during childhood and thus future research in this area would be advised to consider the duration of the investigation in order to denote attachment style revisions and the interconnectedness of the individual's attachment networks.

(c) Further Exploration of Attachment Switching & the Longevity of Enhanced Relational Capabilities

To further investigate the idea of 'switching' – the animals' holding the fort while the child's psychological climate is prepared for new human-human attachments. This research has suggested through inductive means, that an animal may enable the process of switching to occur. Further investigations might seek to explore the extent to which this occurs and the specific factors within the environment that enable the bridging to human-human relationships (c.f. Emmens, 2007). This would extend the data from this research that offers seminal insight into the precursors of changing attachment representations of the caregiver.

An extension to this research could perhaps consider child-animal pairing within foster care, in which carers would receive a child with their animal as a pair, meaning the child has a consistent close relationship throughout (for the life of the animal) their time in foster care. Due to the nature of foster care, change is not only likely, but it is inevitable and research might explore the impact of child-animal pairings on the consistency of attachment security for children living within the foster system.

(d) Consideration of Animal-Attachment Longevity

On the longevity of animal-attachment relationships: If we consider the animal attachment partly as a transitional object, to what extent do animal attachments remain effective thereafter? Are they likely to exert influence beyond the point at which a child 'switches' their relational capabilities to humans? Future research might investigate the lag-time of this effect and establish whether attachment to an animal is a long-term enhancer of relational capabilities, or whether the positive influence of the animal as a direct relationship or as a facilitator is a short-lived buffer.

An extension of this research might be to investigate individuals as they 'age-out' of the foster system and are no longer cared for by foster carers. Although alternative arrangements can be made for children reaching the chronological age of 18 if their developmental age determines they still require living assistance, for many children their coming of age leaves them independent. Research could perhaps investigate the influence of children 'ageing-out' the foster system with an animal companion and the effect that has on their subsequent relationships.

Personal Reflection

It is perhaps fitting to end as this investigation embarked by stating that this research has but partial answers. It still contends that of utmost importance is the utilisation of this research as a precursor to future engagement so that children's experiences in foster care may be understood as fully as possible. The accounts detailed here give great insight into the lives of the eight children who took part in this research, but accordingly, this does not mean that results can be generalised to other children within the foster system. There may be readers who *transfer* analyses to understand their own experiences, but the research here simply explicates the experiences of the eight children who took part in this investigation.

Further, I as the researcher have conveyed the relationships of these children by inductively selecting excerpts from their diaries and interview transcripts. Whilst every effort has been made to keep these presentations in context, I am mindful that the information I have been able to convey is limited by the level of disclosure these children wished to exhibit. This research is restricted by their willingness to tell me about their feelings and emotions, and accordingly, the data I display is a reflection of that which they were prepared to disclose.

The methods utilised were chosen not only for internal-triangulation purposes, ensuring accuracy of conveyed relationships, but to gain an understanding of these children's relationship perceptions in as authentic a manner as possible. The individual nature of each child was apparent through their willingness to complete their diaries, or the extent to which they conversed in their interviews, to the level of intimate detail they provided when reflecting on their present relationships. The children bravely exposed relationship fears, discussing their anxieties and distresses born of their troublesome life histories. They shared intimate details of the highest personal order and divulged candid detail of what it is like for each of them in turn, to have been removed from their birth families and brought up in foster care.

This investigation has provided a conceptualisation of animals as figures of attachment for children in long term foster care. It has explored new means of assessment to better understand children's relative perceptions of relationship development, and it has sought to understand the social factors that influence attachment security within the unsettling process of foster care. While it has exposed moments of distress and continual worry for others, it has also demonstrated the valiant efforts of both children and carers involved in foster care, identifying that love and affection can be found when the right conditions for growth are established. In light of this, I hope this research can instigate further investigations aimed at understanding how foster care

situations might be personally influenced so as to raise children's developmental trajectories and equip them with the necessary relational skills for more secure futures.

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Appendices

Appendix One:

AAQ Numerical Ratings.

Sam AAQ1	**Availability**	**Anger**	**GCP**
Sheila	97.933	42.900	98.500
Bruce	81.967	40.267	62.400
Fido	87.533	94.700	95.167

Sam AAQ2	**Availability**	**Anger**	**GCP**
Sheila	96.267	56.233	96.667
Bruce	84.067	51.233	67.100
Fido	85.633	100.000	93.967

Sam AAQ3	**Availability**	**Anger**	**GCP**
Sheila	95.633	57.667	96.367
Bruce	87.833	56.233	66.667
Fido	86.267	100.000	90.633

Sam AAQ4	**Availability**	**Anger**	**GCP**
Sheila	97.300	56.267	95.733
Bruce	88.033	51.767	69.000
Fido	88.367	100.000	93.867

Sam AAQ5	**Availability**	**Anger**	**GCP**
Sheila	97.200	55.300	96.033
Bruce	86.667	49.700	64.667
Fido	90.967	100.000	95.433

Sam AAQ6	Availability	Anger	GCP
Sheila	96.267	59.400	95.100
Bruce	84.000	39.067	60.433
Fido	88.767	100.000	94.900

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Alex AAQ1	Availability	Anger	GCP
Mary	94.433	60.300	88.500
McCavity	24.600	36.700	41.533

Alex AAQ2	Availability	Anger	GCP
Mary	81.900	62.467	77.700
McCavity	65.400	76.867	61.667

Alex AAQ3	Availability	Anger	GCP
Mary	41.900	65.933	98.800
McCavity	70.633	85.200	64.167

Alex AAQ4	Availability	Anger	GCP
Mary	97.500	34.367	98.033
McCavity	72.900	93.333	60.767

Alex AAQ5	Availability	Anger	GCP
Mary	98.967	66.467	98.867
McCavity	74.700	94.967	56.500

Alex AAQ-6	Availability	Anger	GCP
Mary	98.333	66.867	99.167
McCavity	78.233	96.567	61.367

***

Charlie – AAQ-1	Availability	Anger	GCP
Sue	85.967	47.233	85.700
Storm	81.900	84.433	93.067

Charlie – AAQ-2	Availability	Anger	GCP
Sue	76.667	62.267	93.733
Storm	75.95	95.633	96.333

Charlie – AAQ-3	Availability	Anger	GCP
Sue	96.033	92.167	79.600
Storm	77.000	96.333	95.733

Charlie – AAQ-4	Availability	Anger	GCP
Sue	95.533	65.600	64.467
Storm	80.05	94.067	95.033

Charlie – AAQ-5	Availability	Anger	GCP
Sue	92.900	7.867	89.167
Storm	86.25	95.633	92.267

Charlie – AAQ-6	Availability	Anger	GCP
Sue	92.400	3.867	95.733
Storm	82.35	95.500	92.200

***

Jessie – AAQ-1	Availability	Anger	GCP
Lucy	90.133	65.400	81.533

Tex	77.067	89.267	83.200

Jessie – AAQ-2	**Availability**	**Anger**	**GCP**
Lucy	51.900	70.200	69.700
Tex	78.633	96.933	83.067

Jessie – AAQ-3	**Availability**	**Anger**	**GCP**
Lucy	36.067	18.100	48.967
Tex	80.533	97.900	82.700

Jessie – AAQ-4	**Availability**	**Anger**	**GCP**
Lucy	63.133	33.333	82.733
Tex	84.600	97.767	86.867

Jessie – AAQ-5	**Availability**	**Anger**	**GCP**
Lucy	77.733	72.100	84.800
Tex	84.600	97.933	86.667

Jessie – AAQ-6	**Availability**	**Anger**	**GCP**
Lucy	78.133	45.433	71.633
Tex	85.533	98.667	84.600

***

Jan – AAQ-1	**Availability**	**Anger**	**GCP**
Liz	84.467	30.700	95.267
Blue	92.200	72.200	58.633

Jan – AAQ-2	**Availability**	**Anger**	**GCP**
Liz	87.200	67.667	93.333

Blue	88.033	95.067	79.900

Jan – AAQ-3	**Availability**	**Anger**	**GCP**
Liz	90.533	52.500	89.267
Blue	90.200	96.033	83.467

Jan – AAQ-4	**Availability**	**Anger**	**GCP**
Liz	90.000	19.067	95.700
Blue	89.667	97.233	83.033

Jan – AAQ-5	**Availability**	**Anger**	**GCP**
Liz	87.733	54.167	91.500
Blue	93.767	98.100	81.800

Jan – AAQ-6	**Availability**	**Anger**	**GCP**
Liz	96.253	35.600	96.433
Blue	92.933	97.467	81.567

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Dana – AAQ-1	**Availability**	**Anger**	**GCP**
Rose	99.067	90.400	95.267
Socks	92.233	96.533	90.300

Dana – AAQ-2	**Availability**	**Anger**	**GCP**
Rose	97.867	93.033	97.933
Socks	94.033	97.200	93.467

Dana – AAQ-3	**Availability**	**Anger**	**GCP**
Rose	96.967	93.733	96.567

Socks	95.533	99.167	89.467

Dana – AAQ-4	**Availability**	**Anger**	**GCP**
Rose	97.633	96.100	96.667
Socks	95.433	97.500	95.700

Dana – AAQ-5	**Availability**	**Anger**	**GCP**
Rose	98.933	96.933	97.800
Socks	98.633	99.733	96.933

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Robin – AAQ-1	**Availability**	**Anger**	**GCP**
Trudi	65.300	39.567	64.300
Zak	88.033	96.500	93.900

Robin – AAQ-2	**Availability**	**Anger**	**GCP**
Trudi	66.667	47.633	68.433
Zak	89.533	96.033	93.967

Robin – AAQ-3	**Availability**	**Anger**	**GCP**
Trudi	70.167	49.367	69.033
Zak	90.500	95.200	93.533

Robin – AAQ-4	**Availability**	**Anger**	**GCP**
Trudi	74.433	55.667	69.267
Zak	90.033	94.233	92.933

Robin – AAQ-5	**Availability**	**Anger**	**GCP**
Trudi	76.233	59.867	70.300

Zak	88.967	93.967	93.500

***

Ash – AAQ-1	**Availability**	**Anger**	**GCP**
Gilly	97.767	86.367	93.767
Rich	65.833	73.033	68.800
Scruff	90.300	98.733	85.167

Ash – AAQ-	**Availability**	**Anger**	**GCP**
Gilly	97.433	93.900	94.633
Rich	66.167	74.500	74.500
Scruff	91.200	99.233	87.933

Ash – AAQ-	**Availability**	**Anger**	**GCP**
Gilly	97.867	90.300	95.800
Rich	65.900	75.067	74.033
Scruff	93.433	99.867	91.100

Ash – AAQ-	**Availability**	**Anger**	**GCP**
Gilly	98.000	91.100	96.267
Rich	68.833	75.367	76.267
Scruff	93.567	99.367	92.167

Ash – AAQ-	**Availability**	**Anger**	**GCP**
Gilly	98.200	87.700	95.700
Rich	73.333	73.200	81.100
Scruff	93.400	99.667	92.867

***

Appendix Two

Chronology of the Research Investigation as it unfolded

1. Issue within Foster Care identified
2. Consideration for most appropriate method to investigate the identified issue. Theoretical lens also identified.
3. Appropriate research tools identified
4. Local Authority contacted for access to a sample
5. Local Authority agreed sample but later retracted agreement to participate
6. Advanced Foster Care (AFC) contacted for pitching of research project
7. AFC agreed participation and identified suitable sample
8. Pilot investigation to trial research tools and practicalities of methods
9. Research tools amended in light of pilot study and delivered to pilot study phase two
10. Revision of assessment scales and subsequent revised assessment tools submitted to AFC's clinical fostering director for approval
11. Approval granted and main research sample contacted by AFC
12. Main Research sample visited by Researcher
13. Investigation implemented
14. Weekly or bi-monthly contact maintained between researcher and foster carer
15. At culmination of diary and repeated AAQ measures, researcher conducted separate interviews with foster carer(s) and each child. Child warmly thanked for their participation at the end of the interview.
16. Collected data transcribed on site (at AFC) to maintain anonymity & data security
17. Original diary manuscripts returned to the children within seven days of interview
18. Data written into the investigation report (this thesis)
19. Research report submitted to AFC
20. Full debrief with the foster carers and children
21. Report submitted to the University for assessment.

Appendix Three:

Example of the Revised AAQ Scales

In order to distinguish the revised form of West et al's (1998) AAQ, the original form is presented first with the revised form to follow:

Original Scale: Completed for each considered relationship in isolation.

Anger-Distress:

e.g. My parent only seems to notice me when I'm angry:

0 1 2 3 4 5

Availability:

e.g. I talk things over with my parent

0 1 2 3 4 5

Goal-Corrected-Partnership:

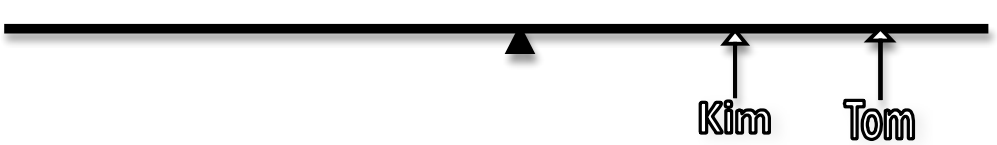
e.g. I feel for my parent when they are upset

0 1 2 3 4 5

Revised Scale: Completed without fixed integers to enable a more fluid rating; the 'parent' assumption of the wording has been replaced; and all relationships are considered concomitantly, thus increasing the relative nature of the relationship evaluations. NB: Pseudonyms used in the example below.

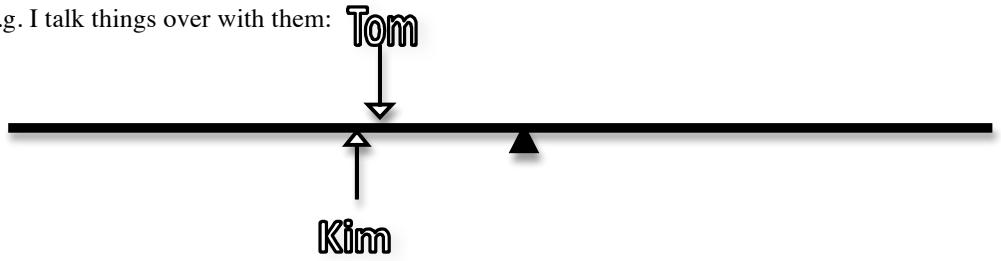
Anger Distress:

e.g. They only seem to notice me when I am angry:



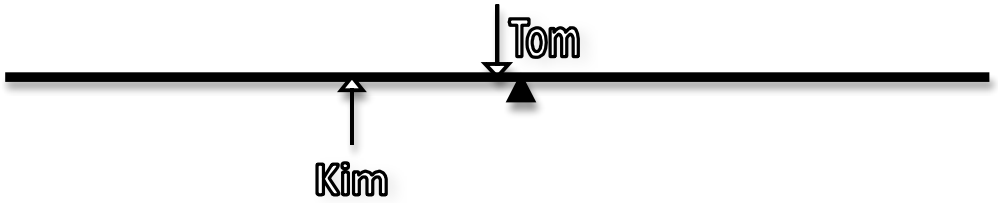
Availability:

e.g. I talk things over with them:



Goal-Corrected Partnership:

e.g. I feel for them when they are upset:



By providing the children with such a fine level of adjustability they were able to better express the smallest of changes in their relationship perceptions without needing to worry whether it would relate to a numerical scale.

Measurements from the point of the arrow were taken in order to numerically profile all changes. Each line of the revised AAQ is 20cm in length.

Appendix Four:

Diary Content:

The children's diaries were constructed to provide a degree of guidance as well as providing plenty of free space for freedom of expression. Presented below are they questions presented each week, though the diaries were presented to the children as a pack, also containing the four-weekly AAQ assessments. Children were encouraged to personalise their diaries if they so wished, though one child opted to complete his diary using a computer and sending their responses via email communication.

1. What has happened this week?

    What did you do?

2. How have you been feeling this week?

    Do you know why?

3. Who have you been spending most time with? Why was that?

4. Has anything happened that made you feel good about yourself?

5. Has anything happened that made you feel upset?

    If so, who comforted you?

6. What have you done with your carer(s)?

7. What have you done with your animal(s)?

8. Free Space: You can do anything you like here!

Appendix Five:

Semi Structured Interview Questions:

Carruther's (1990) advice to relatively inexperienced researchers or to researchers of complex material was to take the necessary steps towards clarity within interviews. He explicated the ease with which interviews can wander, discussing in great detail a number of idiosyncrasies that collectively may be of great interest, but may lack coherence at the point of analysis. He concluded that semi-structured interviews enabled the freedom of a more relaxed interaction, not unduly curtailing a respondent's need to provide further detail on a subject of interest, whilst concomitantly providing the interviewer with a coherence that would ensure the interaction would have every chance of illuminating the topic of interest.

Accordingly, the children in this sample were interviewed using a semi-structured approach. This facilitated the discussion of the unique diary accounts that had unveiled experiences that could not be discussed across the research sample, but ensured that respondents were attending to topics of common theme. This allowed reasonably direct comparison across the sample in the wake of their responses to the pre-established topics of conversation.

To provide some theoretical coherence to the interview, children were posed a number of questions from the Child Attachment Interview (Shmueli-Goetz, Target, Fonagy & Datta, 2008). Examples of the questions posed are found below:

1. Introduction – this is an interview and not a test, I'm just interested to hear what things are like in this place and to hear your point of view. Can you tell me about what it's like here and about the people and animals that you live with?
2. Are you able to tell me a few words that describe who you are? What sort of person are you?
3. Can you describe the relationship between you and your carer(s)?
4. Have they ever had to tell you off for something? What's happens when they do that?
5. Can you tell me about a time when you felt really happy? What was happening then?
6. What about a time when you felt really upset, or felt like you needed help? Can you tell me about a time like that?
    - Who was it that helped you to feel better? What did they do for you?
7. Do you feel that your carers love you and care you? What makes you feel like that?

8. Do you think anybody here knows how you feel? Do they know when you're upset or not feeling quite right? What do they do if they notice this? If they notice you're unhappy, do you mind?
9. Can you tell me what tends to happen if you get hurt or if you feel ill?
10. Has anything else really big happened to you that might have upset you, or made you feel scared or confused? Who is it that you turn to when you feel that way?
11. Is there anyone that you've really cared about who isn't around any more? What bits do you really miss?
12. If you could make three wishes for when you are older, what would they be?

As stated in the thesis, to aid the flow of the conversation, children were interviewed in their own homes. Responses were probed for further information and the interviewer conveyed interest by asking extras such as: "Can you tell me a little more about that?" or "that's a great example" or "What was that like for you?" and "can you give me any examples of that?" As Bruck & Ceci (1999) indicate, the success of research with children often lies in the skills of the researcher to establish an environment in which the child feels safe to discuss their memories and feelings, feeling confident to discuss their accounts rather than feeling scrutinised as part of an assessment. Accordingly, the questions outlined above were seldom delivered in order and were included as part of the discussion and not the ruling components to the flow of conversation.

Appendix Six:

Investigation Paperwork

(a) Study Overview

Hello there,
I am writing on behalf of a research project that I am leading as part of my PhD at the University of Bath. The research seeks to investigate how children's attachment relationships develop in long-term foster placements - specifically those placements where animals are present in the family.
The intention of the research is to understand from a child perspective, the effects and affects that living with an animal has on their human and non-human relationships. Much research has suggested that animals may 'fill the gap' as readily accessible attachment figures, while other research advocates the presence of animals as a catalyst in facilitating human-human relationships. We would like to see how / whether cohabitation with an animal benefits long-term foster placements.

It is along those lines of enquiry that this research seeks to further understanding at both a theoretical and practical level. It is also the intention that this research form a bridge between theory and practice; one where often inaccessible theoretical work is presented as accessible, approachable, manageable and coherent.

Through the use of a harmless self-report measure (based upon the Adolescent Attachment Questionnaire – AAQ, but reworked for ease of comprehension) and guided individual diary records, this research seeks qualitative understanding of a child's experiences in long-term foster placements. The duration of the 'study' would be six months, with the culmination of that time being a simple, easily understood and non-threatening discussion between our researcher and the child, based largely on the information disclosed by the child through their diary.

All members of the research project are suitably qualified to conduct this research, specifically with an attachment focus, and have been cleared by both the University board of ethics, the BERA ethical guidelines and by legal CRB-Enhanced disclosures. They are also willing to undergo any checks / procedures that your authority considers necessary.

All information will be treated confidentially, made anonymous for further use and the primary data destroyed at the end of the project (although all findings will be handed to those suitable within your authority). In the event that a child raises issues suggesting their safety is compromised the researcher will, of course, disclose this appropriately to the relevant authority worker.

The specific requirements that the research project seeks are:
(1) Children aged 10-13 who are;

(2) In long term foster care (already with a foster placement for 6 months, and likely to be there for a further 6 months).

(3) For there to be a 'house-dog' living in the environment at present.

(4) For the child to be literate and

(5) To be willing to enter into this research (their withdrawal will be accepted at any stage if they should wish).

I have included an overview of the 'tools' that will be used to record information / guide discussions with the children and the foster carers. If you have any questions or would like to discuss the research in further detail, please do not hesitate to get in touch.

Ben Rockett – Lead Researcher:
Ben Rockett has worked with children in diverse capacities over the past seven years. He has taught secondary and further education, taught undergraduate degree units, worked with autistic children in equine therapy, taught alternative education to children removed from mainstream institutions, taught on government funded CBT programmes for youth depression as part of a national Mental Health Research and Development programme, and been actively involved in attachment research and the fostering system over the course of his PhD.

His interest with this research project has risen from his deep involvement with animal assisted education where he noticed the intense and valued relationships that were established between

children and animals; particularly amongst those children who were having difficulties within their human-human relationships. At times of distress and anxiety, the children would turn to the animals as a source of comfort and support. This research aims to see to what extent an animal within the living environment of fostered children facilitates relationships between the child and the foster carers.

Additional Researchers: Dr. Sam Carr, Uni. Of Bath. (PhD Supervisor)
Dr Richard Joiner, Uni. Of Bath.

Additions:
(1) BERA Guidelines:
(2) Research Project 'tools': (2.1) Adapted AAQ overview; (2.2) Interview Overview; (2.3) Diary Plans; and (2.4) Interview with Carers.

(1): BERA Guidelines:
http://www.bera.ac.uk/files/guidelines/ethica1.pdf
(2): Research Project Tools:
(2.1): The AAQ is a self-report questionnaire consisting of 3 scales of 3 statements each with Likert-type responses from strongly disagree to strongly agree. The **'Availability' scale** assesses the adolescent's confidence in the availability and responsiveness of the attachment figure. The **'Goal-Corrected Partnership' scale** assesses the extent to which the adolescent considers and is empathetic to the needs and feelings of the attachment figure. The **'Angry-Distress' scale** taps the amount of anger in the adolescent–parent relationship. This is a very easy-to-understand and non-threatening way of establishing whether there is an attachment in place and holds strong reliability with the AAI (set as a benchmark in the attachment literature). **(Time commitment from child– approximately 15 minutes).**
(2.2): The interview will seek to explore the responses to the AAQ in the form of the following:
Quality of relationships between the child and the foster carers
Quality of relationships between the child and the dog
How those relationships are utilised
What circumstances cause those relationships to be called upon
The levels of trust, intimacy, dependence within those relationships
The levels of anger, anxiety,
The levels of satisfaction and enjoyment
(Time commitment from child – 45-60 minutes).
(2.3): The diaries will be individualised for each child, making it a personal space. There will be guided sections that ask specific questions / steer the child's thoughts in a particular direction concerning events and relationships. There will also be significant space for personal thought and freedom of expression to include anything they should wish to include. The child can engage with this diary as much as they should wish. The comments raised through the diary will be used to support further discussion in the interviews.
(Time commitment from child – optional).
(2.4): Interview with foster carers.
These interviews will be semi-structured interviews seeking alternative views on how the child managed to attain and maintain relationships within the foster family; human and non-human relationships. These interviews will seek to tap a more articulate representation of how / when / why the child sought / didn't seek relationship comfort and how / whether the dog had any involvement in comfort and felt security.
(Time commitment from carers – 45-60 minutes).

Thank you for your time in reading about this research investigation. I very much hope you will consider your authority being involved in this research and together we might find something to benefit the thousands of children living in long-term foster care across the country.

(b) Informed Consent From the Children:

I have discussed this project with my foster carers and/or social workers and I know why it is happening.

I have been able to ask questions about it, and they have been answered, so that I know what will happen.

I know that I am allowed to stop taking part if I decide I want to leave the research and I wont be in any trouble because of this.

I know that the people doing the research will not pass my information to anybody else.

I know that I will have all the research explained to me once the project has finished.

Signed Participant (you):

Name Printed: Date:

Signed Guardian:

Name Printed: Date:

(c) Informed Consent From the carers:

As the guardian of ……(child's name), I can confirm that I have read and understood the information provided with regards to the research project mentioned above. I have had opportunity to ask questions about the project and to seek further explanation where required. I am happy that there will be no harm caused to anybody involved, and therefore give consent that both I, and the child in my care, be involved in the research project.

Signed (Guardian):

Name (Printed):

Date:

(d) Ethical Acceptance:

Student: Ben Rockett	**Signature:** B Rockett **Date:** 25. APRIL . 2012
Supervising Member(s) of Staff: Dr Sam Carr	**Signature(s):** Sam Carr **Date:** 25/04/2012
Director of Studies Dr Jill Porter	**Signature:** J Porter **Date:** 26/4/2012

A copy of this form to be placed in [1] the student file, and [2] an Ethics Approval File held by the Director of Studies. The Director of Studies will report annually to the Department's Research Students Committee (white paper business) on ethical issues of particular interest that have been raised during the year.